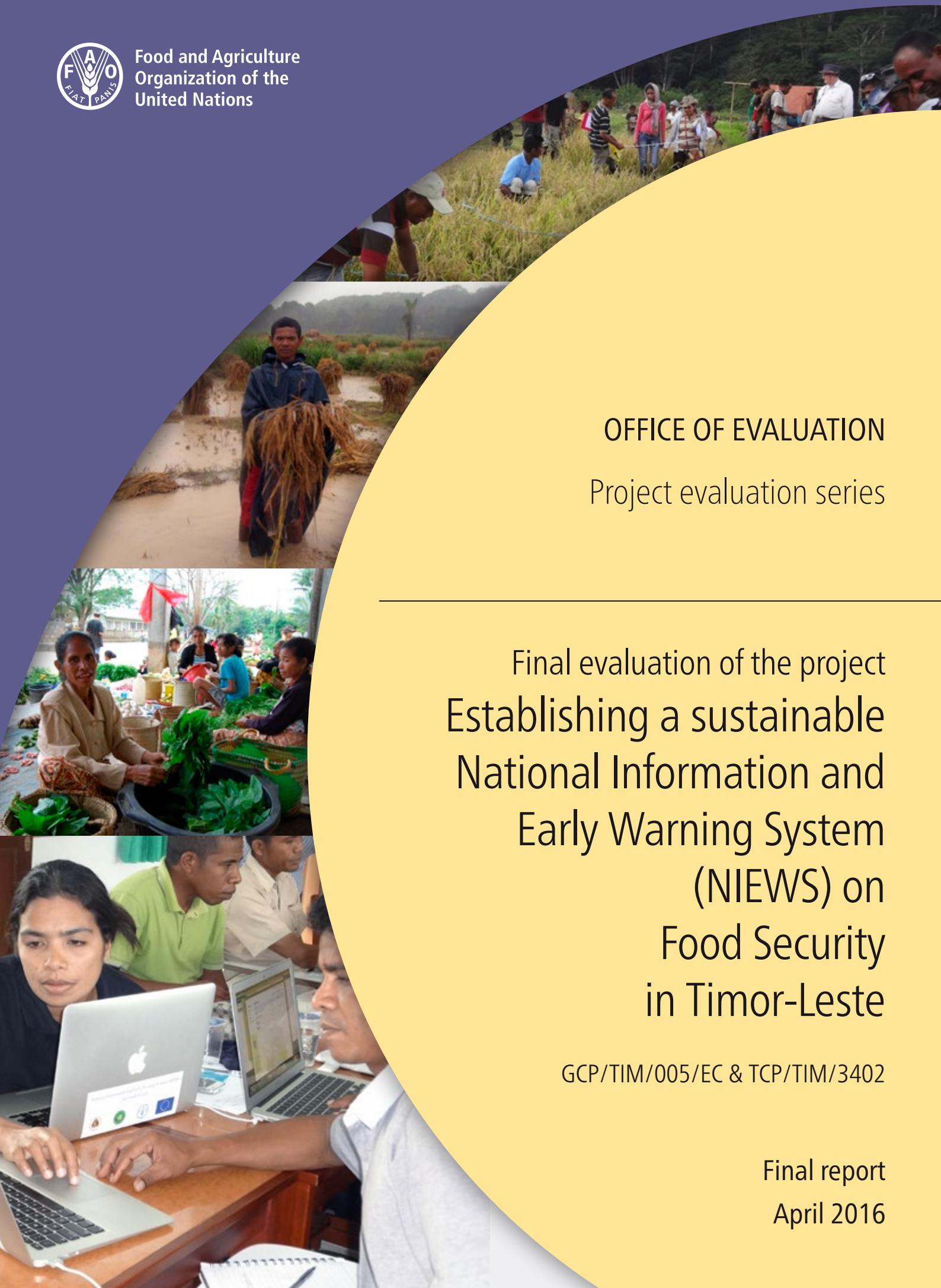




Food and Agriculture  
Organization of the  
United Nations



OFFICE OF EVALUATION

Project evaluation series

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Final evaluation of the project  
Establishing a sustainable  
National Information and  
Early Warning System  
(NIEWS) on  
Food Security  
in Timor-Leste

GCP/TIM/005/EC & TCP/TIM/3402

Final report  
April 2016



Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

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## Map of Timor-Leste



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## Acronyms and abbreviations

ALGIS	Agricultural Land Use Geographic Information Systems
CPF	Country Programming Framework
CTA	Chief Technical Advisor
ET	Evaluation Team
EU	European Union
EW	Extension Worker
FAO-RAP	FAO Regional Office for Asia and the Pacific
FSB	Food Security Bulletin
FSO	Food Security Officers
FSU	Food Security Unit
GCCA	Global Climate Change Alliance
GIZ	German Development Cooperation
IFSTF	Inter-ministerial Food Security Task Force
IMFNSR	Inter-Ministerial Food and Nutrition Security Report National Council for Food Security, Sovereignty and Nutrition in Timor-Leste
KONSSANTIL	Leste
MAF	Ministry of Agriculture and Fisheries
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
NIEWS	National Information and Early Warning System
NSC	National Steering Committee
OED	Office of Evaluation
SLMS	Suco Level Monitoring System
TCP	Technical Cooperation Programme
ToT	Training of Trainers
UNDAF	United Nations Development Assistance Framework
UNEG	United Nations Evaluation Group

## Executive Summary

### Introduction

ES1 This report is an evaluation of the project "Establishing a sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste", through which the Food and Agriculture Organization of the United Nations (FAO) supported the Ministry of Agriculture and Fisheries (MAF) to improve the institutional structures and corresponding capacities necessary to sustain NIEWS. The main purpose of the evaluation was to: (i) provide accountability to the donor; and (ii) draw lessons from the implementation processes that could inform future decisions by the European Union (EU) and FAO on the formulation of a second phase or follow-up intervention.

ES2 The final evaluation assessed the entire implementation period of the project, from January 2012 to July 2015, and covered all key activities undertaken within the framework of the project, as described in the project document. The geographical area covered by the evaluation included a representative sample of municipalities from the east, central and west regions. The specific objectives of the final evaluation were: (i) to assess the appropriateness of the project's strategy and approach; (ii) to assess the project's achievements vis-à-vis its set objectives, and to identify design and implementation issues, as well as factors that contributed to success and/or failure; (iii) to assess the actual and potential impact of the project; and (iv) to identify lessons from project implementation that can be applied to FAO's future programmatic work. The evaluation team (ET) also looked into the following cross-cutting aspects: gender and equity; partnerships and alliances; and sustainability of the intervention.

ES3 The independent evaluation was managed by an Evaluation Officer from FAO's Office of Evaluation (OED), and was conducted by an independent ET between July and August 2015. The ET comprised two international experts with experience in the fields of food security and nutrition, early warning systems and evaluation, and a national consultant who provided support during the evaluation mission.

ES4 The evaluation used a consultative and transparent approach with the involvement of stakeholders throughout the process. Initial findings were validated through triangulation with different key informants, and the resulting evidence supported the conclusions and recommendations. Several methods and tools for data collection were used by the ET. A desk review of available documents (see Appendix 2) was carried out to understand the context, project background and reported progress towards the intended project results. To ensure the sufficient collection and triangulation of evidence in order to answer the main evaluation questions, the ET developed a detailed set of key evaluation questions and sub-questions (see Annex 1 for the Terms of Reference); conducted semi-structured interviews with key informants and stakeholders at national and district level (see Appendix 3); and carried out field visits to four districts in the east, west and south of the country, and one Suco in each district.

ES5 The evaluation mission to Timor-Leste was undertaken between 24 July and 11 August 2015 (see Annex 2 for the mission programme). In Dili, the ET had a briefing with the project Chief Technical Advisor (CTA), met with the MAF departments involved in the project implementation, and held a teleconference with the Lead Technical Officer based in FAO's Regional Office for Asia and the Pacific located in Bangkok. During the field visits to the four districts, the ET met with MAF representatives and local authorities in each Suco. At the end of the evaluation mission, a debriefing workshop was organized in Dili to present and discuss the

preliminary findings and potential recommendations. The stakeholder workshop was attended by the Minister and Vice-Minister of Agriculture and Fisheries, relevant departments of MAF, and EU and FAO representatives.

ES6 Agriculture is the most important socioeconomic sector in Timor-Leste, as about three-quarters of its population depends on this sector for its livelihoods. However, food production is highly vulnerable to climate change, which may become increasingly variable over the next decade. Maize, for example, the most abundant and accessible crop, is reliant on regular rainfall in the wet season. Despite the importance of the agriculture sector, the country is a net food importer and food insecurity is widespread across rural areas during the lean season, from October to March. Food insecurity affects about 70 percent of households, representing a major cause of malnutrition. Nearly one in two under-five children (45 percent) is underweight due to acute and chronic malnutrition; more than half of children (58 percent) are stunted as a result of poor nutrition over an extended period of time. Prior to the project, reliable agricultural data was not being collected on a systematic basis.

## Main findings

ES7 The main findings of the evaluation are presented below, grouped by evaluation question.

1. *How relevant and appropriate were the project design and activities to address the expressed needs of the Timor-Leste government (MAF) and to achieve its planned results?*

ES8 The project is fully in line with the main national development strategies, FAO's strategic objectives, United Nations Development Assistance Framework (UNDAF) strategy and the EU policy framework for food security. The project was designed in consultation with the relevant departments of MAF to address their specific information and capacity development needs for the establishment of an information system able to provide reliable, timely and updated food security information to decision makers. However, the capacity development programme was not designed taking into account the initial skills and knowledge of the MAF staff, leading to a level of the training which was often too advanced.

ES9 The institutional set-up of the project was well conceived, as it promoted the ownership of NIEWS by MAF. The project was positively influenced by two major institutional MAF reforms (e.g. upgrading of the Food Security Unit), but there were also some drawbacks, such as the reallocation of well-trained staff. The project was efficiently managed by the project team and received adequate technical backstopping from FAO. It produced good annual progress reports but did not establish a proper M&E system.

2. *What has the project achieved vis-à-vis its planned objectives?*

ES10 The project has effectively contributed to the establishment and functioning of NIEWS as the national information system that provides information on food security from the villages to the national level. Although the information collected is relevant, constraints have been identified in the consistency due to frequent disruptions of the extension workers in collecting local data. The project has also enhanced the capacity of MAF technical staff in their relevant areas of expertise. Nonetheless, the high turnover of staff may have limited the benefits of the enhanced knowledge, which is also being constrained by the changes in the organizational

structure of MAF. The information generated by NIEWS has proven to be useful for making decisions related to food security.

3. *What changes can be observed, in terms of use of NIEWS, as a result of the project?*

ES11 Even though it is too soon to see longterm changes as a result of the project, the NIEWS has indeed contributed to some intermediate outcomes. For instance, information provided by the NIEWS led to the revision and modification of the 2005 Food Security Policy to be approved by the Council of Ministers. In addition, NIEWS products have been used to identify priority activities to be included in the Zero Hunger National Action Plan, launched in July 2014. Furthermore, based on the information provided by the Food Security Bulletin on the alarming rice imports rates and on the recommendations provided by the KONSSANTIL Technical Working Group, the Government issued a Decree Law in relation to rice imports in early 2015, avoiding a negative impact on local rice production.

4. *Gender and equity*

ES12 Gender was scarcely considered in the project design or during the project implementation. Although a national household food and nutrition security survey was initially planned with gender-disaggregated data, this activity was cancelled. In addition, women’s participation in capacity development activities was quite low, which was partially justified by the higher number of men in the MAF staff. Nonetheless, more focus and commitment to gender equality could have been given, taking into consideration the key role women play in household food security and nutrition as well as in the economic activities related to agriculture development in Timor-Leste.

5. *Partnerships and alliances*

ES13 The NIEWS project has succeeded in establishing and consolidating partnerships with a broad network of institutions engaged in food security, nutrition and climate change in Timor-Leste. The setting up of the National Council for Food Security, Sovereignty and Nutrition in Timor-Leste (KONSSANTIL) was a tangible result of the work done by the project in networking and liaising with government institutions, development partners and NGOs, at national and district level. It is worth mentioning the effective collaboration with GIZ, Instituto Camões and the Australian Seeds of Life project, which paved the way to reinforce the technical support provided to the Agricultural Land Use Geographic Information Systems (ALGIS) on the rehabilitation of the weather stations and acquisition of real-time data.

6. *Sustainability*

ES14 Sustainability was partially constrained by the lack of a comprehensive exit strategy, especially in the handover of responsibilities and tasks to MAF for the preparation of the NIEWS bulletins and reports. Despite these limitations, the Government’s ownership and engagement may result in the continuation of the system. The political willingness and financial viability should contribute to the strengthening of the NIEWS system, which is of utmost importance to generate relevant and timely information on food security and nutrition at national and district level.

## Conclusions and recommendations

**Conclusion 1:** The project has established a well-designed and efficient information system which adequately addresses the specific needs and context of the Timor-Leste government. The system has some limitations and great potential for improvement. Despite its limitations, the information provided by NIEWS has already influenced decision-making at a policy level.

**Conclusion 2.** The strong training component of the project has enabled the start-up and smooth implementation of NIEWS. However, insufficient financial resources and inadequate institutional decisions could jeopardize the system regardless of the positive signs for sustainability.

**Conclusion 3.** KONSSANTIL, as the national forum to take coordinated actions in relation to food and nutrition security matters, has been crucial for the establishment of NIEWS.

**Recommendation 1. To FAO and the EU for the consolidation of the project and technical improvement of the NIEWS.** The ET recommends for NIEWS to be supported with continuous technical assistance in order to make the necessary adjustments and reinforcements that would lead to an even more efficient and accurate food security information system in the country. In particular, technical improvements can be promoted in the following areas: data collection, data analysis, report writing and dissemination.

ES15 For the consolidation of the project, some actions might include:

- FAO to follow up with the Government to explore any need of additional technical assistance and support;
- Organize a workshop with key national, district and sub-district MAF staff including a significant representation of extension workers (EW) and Food Security Officers (FSO) to seek solutions to the low submission rate of suco information;
- Establish a clear accountability line of NIEWS staff from local to central level;
- Provide the EW with the necessary means to carry out data collection in the sucos, including more suitable motorbikes for the female EW;
- Develop a feedback mechanism from the national level to the district and suco level;
- Explore non-monetary incentives for the EW and local authorities, such as exchange visits, workshops and training;
- Assess the institutional and individual capacities and skills that need to be further strengthened in the relevant MAF departments (FSU, Statistics, Crop Assessment);
- Develop a tailor-made training programme with a special focus on on-the-job training;
- Explore the possibility of additional financial support to continue NIEWS.

ES16 In relation to the technical improvements of the NIEWS, some suggested actions might include:

- Improve the accuracy of data collection, particularly in the estimation of cultivation areas. FAO should continue to support MAF to develop an improved statistical system on agricultural production and food availability;
- Explore the use of mobile devices for data collection and transmission to the main data storage repository. Smart phones have applications that could also be useful for EW (i.e. GPS for calculating cultivated areas);
- Improve the database by integrating graphs and maps in order to enable users to run trends for monthly, quarterly and yearly analyses;
- Include information on cash crops and wages in the questionnaire in order to report on food access indicators;
- Include discussions with key informants/focus groups in the data collection process;
- Expand outreach of the bulletins by disseminating them using SMS messages, media, radio and television;
- Explore ways to improve the methodology on the measurement of food security. A suitable method could be convergence of evidence developed by Integrated Phase Classification<sup>1</sup>;
- Include new sections on the FSB and IMFNSR to allow a quick interpretation and understanding of the current and future food and nutrition situation in the country (e.g. outlook, brief explanation on how the situation is likely to evolve, and maps highlighting the most food insecure areas and hotspots).

**Recommendation 2: To FAO Timor-Leste for improving project design, management and sustainability:** The ET recommends that a proper phasing out/exit strategy is developed for future projects in order to improve their sustainability. In addition, to improve project management the ET recommends that FAO ensures the implementation of a well-designed M&E system and the provision of overall project supervision and management by the FAO Lead Technical Unit.

**Recommendation 3: To FAO Timor-Leste for improving capacity development programmes:** For future capacity development programmes, the ET recommends developing comprehensive capacity development programmes in a participatory manner, including a thorough assessment of the institutional capacity needs as well as individual skills and knowledge gaps. For this purpose, guidance and support might be sought from the Capacity Development Unit hosted in the Office of Partnerships, Advocacy and Capacity Development (OPC) at HQ.

**Recommendation 4. To FAO Timor-Leste to advise the Government for ensuring the sustainability of the achieved results in terms of the capacity development:** to the extent possible, the ET suggests that FAO advises the Government:

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<sup>1</sup> By developing an improved methodology, MAF will be better equipped in identifying food insecurity hotspots and targeting the most vulnerable people. The weather forecasting tools should be further developed and put in place by MAF. This will provide a great deal of information for alerting natural risks and for planning/reviewing plans of agriculture campaigns.

- To minimize the turnover of trained staff;
- To establish a mechanism to ensure the acquired knowledge is transferred among staff in those cases when staff movement is unavoidable.

## 1. Introduction

### 1.1 Purpose of the evaluation

4. The final evaluation of the project "Establishing a Sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste" (GCP/TIM/005/EC and TCP/TIM/3402) was mandated in the agreement between the European Union (EU), the donor, and the Food and Agriculture Organization of the United Nations (FAO), the implementing partner. The project began in February 2012 and was extended until July 2015, with a total budget of EUR 1 315 310. Of this amount, 80 percent (EUR 1 052 000) was funded by the EU and the remaining 20 percent (EUR 263 310) was covered by a Technical Cooperation Programme (TCP) as FAO's contribution. The Financial Agreement between FAO and the EU for the implementation of the project was officially signed on 21 December 2011, with an initial duration of three years. In January 2015, the project was extended at no extra cost to July 2015 (resulting in 42 months of project duration).
5. The main purpose of the final evaluation was two-fold: (i) to provide accountability to the donor; and (ii) to draw lessons from the implementation processes that could inform future decisions by the EU and FAO on the formulation of a second phase or follow-up intervention. Annex 1 includes the detailed Terms of Reference for the final evaluation.

### 1.2 Scope and objective of the evaluation

6. The final evaluation assessed the entire implementation period of the project, from January 2012 to July 2015, and covered all key activities undertaken within the framework of the project as described in the project document. The geographical area covered by the evaluation included a representative sample of municipalities from the east, central and west regions.
7. The specific objectives of the final evaluation were: (i) to assess the appropriateness of the project's strategy and approach; (ii) to assess the project's achievements vis-à-vis its set objectives, and to identify design and implementation issues, as well as factors that contributed to success and/or failure; (iii) to assess the actual and potential impact of the project; and (iv) to identify lessons from project implementation that can be applied to FAO's future programmatic work.
8. The ET also looked into the following cross-cutting aspects: (i) gender and equity; (ii) partnerships and alliances; and (iii) sustainability of the intervention.
9. The independent evaluation was managed by an Evaluation Officer from FAO's Office of Evaluation (OED), and was conducted by an independent evaluation team (ET) between July and August 2015. The ET comprised two international experts with experience in the fields of food security and nutrition, early warning systems and evaluation, and a national consultant that provided support during the evaluation mission.



### 1.3 Methodology

10. To guide the assessment, the final evaluation focused on the following key questions:

**Box 1:** Evaluation questions

1. How relevant and appropriate were the project design and activities to address the expressed needs of the Timor-Leste government (Ministry of Agriculture and Fisheries (MAF)) in the domain of food security and to achieve its expected results?
2. What has the project achieved vis-à-vis its planned objectives?
3. What changes can be observed, in terms of use of NIEWS, as a result of the project?
4. What institutional lessons can be drawn from the project implementation?

11. During the preparatory phase of the evaluation, the ET agreed with the OED Evaluation Manager on the evaluation’s methodology. Several methods and tools for data collection were used by the ET. A desk review of available documents (see Appendix 2 for a list of documents consulted) was carried out to understand the context, project background and reported progress towards the intended project results. To ensure the sufficient collection and triangulation of evidence in order to answer the main evaluation questions, the ET further contextualized and broke down the main questions into sub-questions questions (see Annex 1. Terms of Reference); conducted semi-structured interviews with key informants and stakeholders at national and district level (see Appendix 3 for a list of people consulted); and carried out field visits to four districts<sup>2</sup> in the east, west and south of the country and four sucos, one in each district. Furthermore, an online user survey was administered to NIEWS users to gather their feedback and opinions on the relevance and usefulness of NIEWS. The online version<sup>3</sup> of the questionnaire was distributed in both English and Tetum to the project’s mailing lists, while printed copies of the survey were provided to MAF staff, especially in the districts, as Internet access was very limited. Eighty replies were received, mainly in Tetum, and were analyzed (see Annex 3 for the analysis of the survey results).

12. The evaluation mission to Timor-Leste was undertaken between 24 July and 11 August 2015 (see Annex 2 for mission programme). In Dili, the ET had a briefing with the project Chief Technical Advisor (CTA), met with the MAF departments involved in the project implementation, and had a teleconference with the Lead Technical Officer based in FAO’s Regional Office for Asia and the Pacific located in Bangkok. During the field visits to the four districts, the ET met with MAF representatives and local authorities in each suco. At the end of the evaluation mission, a debriefing workshop was organized in Dili to present and discuss the preliminary findings and potential recommendations. The stakeholder workshop was attended by the Minister and Vice-Minister of Agriculture and Fisheries, relevant departments of MAF, EU and FAO representatives.

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<sup>2</sup> The visited districts included: Lautem, Baucau, Ermera and Ainaro, and the four sucos were: Home, Caicua, Lauala and Soro. The Terms of Reference also envisaged covering the Oecusse enclave/Zona Especial Economia Social e Mercado (ZEESM), however, it was not possible to visit this district due to logistical reasons.

<sup>3</sup> SurveyMonkey was used as the tool to prepare the online version of the questionnaire.

13. The evaluation followed the United Nations Evaluation Group Norms and Standards<sup>4</sup> and assessed the relevance, effectiveness, sustainability and impact of the project, based on the key evaluation questions. The evaluation used a consultative and transparent approach with the involvement of stakeholders throughout the process. Initial findings were validated through triangulation with different key informants; the resulting evidence supported the conclusions and recommendations.

#### **1.4 Limitations**

14. The main limitations of the evaluation were: i) lack of some data and other relevant information due to the absence of quantitative targets in the monitoring and evaluation (M&E) system; and ii) the lack of the project's final report, which was not yet available due to the project's extension to 31 July 2015.

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<sup>4</sup> United Nations Evaluation Group, <http://www.uneval.org/normsandstandards>

## 2. Background and context

### 2.1 Description of the Food Security situation in Timor-Leste

15. Agriculture is the most important socioeconomic sector in Timor-Leste, as about three-quarters of its population depends on this sector for its livelihoods. However, food production is highly vulnerable to climate change, which may become increasingly variable over the next decade. Maize, for example, the most abundant and accessible crop, is reliant on regular rainfall in the wet season. Despite the importance of the agriculture sector, the country is a net food importer and food insecurity is widespread across rural areas during the lean season, from October to March. Food insecurity affects about 70 percent of households, representing a major cause of malnutrition. Nearly one in two under-five children (45 percent) is underweight due to acute and chronic malnutrition; more than half of children (58 percent) are stunted as a result of poor nutrition over an extended period of time.
16. The Government's policy strives to implement sectoral interventions to improve productivity and sustainability in agriculture with the ultimate goal of achieving food sufficiency in the country. MAF identified the need of baseline agricultural data upon which to define scenarios of food security in the country, such as climate change impacts on environmental and social systems. As no reliable agricultural data was being gathered on a systematic basis, this lack of evidence-based information limited the action of MAF in the planning and implementation of sound interventions for agriculture and food security, including targeting services and assistance to the most vulnerable people in the country. As a result, in 2010 the strategic programme for promoting agricultural growth and sustainable food security in Timor-Leste established the component of "stakeholder co-ordination, information gathering and policy development".
17. Assessments of the vulnerability of agriculture systems and food insecurity were considered a top priority. To this end, it was crucial to establish a functioning network of meteorological stations to record rainfall throughout Timor-Leste and set up a national information system at suco level that could provide data on food security, agriculture and rural livelihoods. This reliable data would also serve to monitor food availability, access and utilization. NIEWS therefore was considered as an essential tool to obtain the relevant data and information for policy formulation and decision-making, with the ultimate goal of achieving a higher level of food security and nutrition.

### 2.2 Description of the NIEWS project

18. Following a request from the Government of Timor-Leste, FAO supported MAF in "Establishing a sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste". The project aimed at building the institutional structures and corresponding capacities necessary to sustain NIEWS. As such, the project was designed along two main components and respective outputs: the first included financial and technical support provided for the implementation of NIEWS; while the second component focused on building the capacities of relevant departments within MAF (e.g. Food Security, Statistics, Agro-meteorology, Crop Assessment) for the functioning of the system.

19. The project’s theory of change was straightforward (see Appendix 1). The project would provide reliable, timely and updated food security information to decision makers in the government and other stakeholders so that appropriate mitigating and coordinated actions could be taken to improve the food and nutrition security of the local population. This would be accomplished by: establishing a national web-based information and early warning database on food security; building and strengthening capacities and skills of MAF staff to collect, analyze and disseminate food security information; and supporting the National Council for Food Security, Sovereignty and Nutrition in Timor-Leste (KONSSANTIL), the inter-sectoral food security coordination structure. In this way, the project was expected to promote evidence-based and timely decision making that in turn contributes to the improvement of food security and nutrition in the country.
20. The project was implemented at national level, covering each of the country’s 13 districts and 420 sucos. The direct beneficiaries of the project were MAF and members of the KONSSANTIL<sup>5</sup> Technical Working Group, composed of representatives of the Ministry of Health, Ministry of Tourism, Commerce and Industry, Ministry of Social Solidarity, Ministry of Education, Ministry of Infrastructure, Ministry of Finance, non-governmental organizations (NGOs) and members of the Disaster Management Committees. Furthermore, 13 Food Security Officers (FSO) and about 400 MAF extension workers (EW) were targeted as direct beneficiaries of the project. The indirect beneficiaries were the food insecure households, marginalized women and children under five.
21. The main partners of the project were the departments of MAF that closely collaborated with FAO. The institutional setup of the project ensured regular support to KOSSANTIL as the inter-ministerial coordination body on food security and nutrition, particularly in the implementation of its functions to coordinate, consolidate and synergize the roles and tasks of the members. Other partners were the ministry members of KONSSANTIL and other development partners such as the German Development Cooperation (GIZ), Instituto Camões, Seeds of Life project, Japan International Cooperation Agency and international NGOs that provide support on food security projects in Timor-Leste.
22. The initial implementation timeframe was 36 months (January 2012-December 2014), however, the project was extended through a seven-month no-cost extension until 31 July 2015. In early 2012 an inception mission reviewed the logframe and the budget, which was further approved by the EU. The mission also reviewed the project activities and revised the wording of some of the activities for the sake of clarity and to reflect the updated situation in MAF. It also improved the consistency between project activities, inputs and budget. The overall strategy of the project was not modified in the course of the implementation.
23. The project allocated more than half of the budget to human resources (52 percent) (due in part to the large component on capacity development). This share is even higher (64 percent) if the costs of specialized consultants (e.g. statisticians, agro-

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<sup>5</sup> The former Inter-ministerial Food Security Task Force (IFSTF)

meteorologist, crop assessment expert, database manager) are included under the human resources budget line instead of "other costs". The project also provided the necessary equipment (e.g. computers, generator, vehicles) and covered the necessary operating costs for the achievement of the expected outputs.

## 3. Findings

### 3.1 Assessment of project’s concept and design

24. The assessment of the project’s concept and design was guided by the following key question and sub-questions:

**Question 1. How relevant and appropriate were the project design and activities to address the expressed need of the Timor-Leste government (MAF) and to achieve its planned results?**

*Is the project in line with existing Government, FAO and donor strategies and priorities?*

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**Finding 1: The project is fully in line with the main national development strategies, FAO’s strategic objectives, United Nations Development Assistance Framework (UNDAF) strategy and the EU policy framework for food security.**

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25. The NIEWS project is in line with the government Strategic National Development Plan 2011-2030 that establishes rural development as one of the main national priorities in which the agricultural sector plays a key role. The Government is determined to boost and diversify agricultural production and expand the internal market for achieving food sufficiency. NIEWS contributes to monitoring, analyzing and disseminating the progress and achievement of these strategic priorities on food security.

26. The project is relevant to the Comoro Declaration signed in 2010 by seven ministries and the development partners to address food insecurity in Timor-Leste. The main outcome of this Declaration was the establishment of the Inter-ministerial Food Security Task Force (IFSTF)<sup>6</sup> as a coordination body to discuss the country’s food security situation, which has been supported by the NIEWS project.

27. The project is also in line with the MAF Strategic Plan 2014-2020, in particular with the Strategic Objective 3 “To improve the enabling environment” and with the following specific objectives:

- SO 3.3: To establish and maintain a functional agricultural statistics system providing timely and appropriate information to sector stakeholders and assisting the planning and management of MAF.
- SO 3.4: To develop capacity for improved decision-making in the planning and budgeting process by providing accurate and up-to-date climate information and analysis.
- SO 3.5: Develop the necessary early warning system and weather monitoring to help mitigate the impact of and adapt to climate variability on the agricultural sector.

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<sup>6</sup> The IFSTF is currently the KONSSANTIL Technical Working Group.

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28. Furthermore, the project is relevant and contributes to FAO's Strategic Objective 1 "Contribute to the eradication of hunger, food insecurity and malnutrition", and particularly to the Organizational Outcome 103 "The decision of member countries and their development partners regarding food security and nutrition is based on evidence and high-quality, timely and comprehensive food security and nutrition analysis that draws on data and information available in the network of existing sector and stakeholder information systems". It is also relevant to FAO's Strategic Objective 5 "Increase the resilience of livelihoods to threats and crises". In addition, the project relates to Timor-Leste's Country Programming Framework, specifically to Priority Area 4 "Strengthening institutional capacity of the MAF and other stakeholders of the agriculture sector", with one of its main outcomes as "improved agricultural statistics systems and planning".
29. The project fits into the UNDAF<sup>7</sup> strategy 2009-2013<sup>8</sup>. One of the three areas of cooperation identified under the main goal of consolidating peace and stability was Poverty Reduction and Sustainable Livelihoods. The UNDAF Outcome 2 establishes that: "By 2013, vulnerable groups experience a significant improvement in sustainable livelihoods, poverty reduction and disaster risk management within an overarching crisis prevention and recovery context."
30. Finally, the NIEWS project is fully in line with the EU policy framework for food security (SWD 2010-127) and with the plan for implementing the food and nutrition security commitments, (SWD 2013-104). The project also fits well within the EU 11<sup>th</sup> EDF National Indicative Programme 2014-2020 that establishes rural development as one of the two key areas for Timor-Leste's continued sustainable and inclusive development.

*To what extent did the project design address the needs expressed by MAF and other stakeholders?*

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**Finding 2. The project was designed in consultation with the relevant departments of MAF to address their specific information and capacity development needs for the establishment of an information system able to provide reliable, timely and updated food security information to decision makers. However, the capacity development programme was not designed taking into account the initial skills and knowledge of the MAF staff, leading to a level of the training which was often too advanced.**

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31. Based on the experience of the Suco Level Food Security Monitoring System (SLMS), developed by an EU initiative in 2010, MAF requested FAO's support for improving the statistical quality of this system and for establishing NIEWS. The project was therefore designed to establish a system and build the necessary capacities to provide reliable, timely and updated food security information to decision makers in

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<sup>7</sup> United Nations Development Assistance Framework (UNDAF)

<sup>8</sup> The UNDAF 2009-2013 was extended to 2015

the government and other stakeholders so that they can take appropriate coordinated actions to improve the food and nutrition security of the local population.

32. In early 2010, FAO conducted a mission to Timor-Leste to assess the needs, discuss with stakeholders and prepare the NIEWS project proposal. The mission identified both the main bottlenecks of SLMS and the capacity development needs to adequately run the system. The project was therefore designed in consultation with the relevant departments of MAF to address their specific needs for the effective establishment of NIEWS.

*Was the capacity development approach envisaged by the project adequate to address the beneficiaries' knowledge gaps?*

33. The capacity development approach of the project included formal training, on the job training and workshops in the following four areas: (i) SLMS data entry and database management/maintenance; (ii) data analysis and dissemination of information; (iii) data generation/collection (crop cutting methodology); and (iv) remote sensing, data interpretation, analysis of agro-meteorological information and report writing.
34. The capacity development approach properly addresses the areas to be strengthened based on the needs identified during the formulation mission. The focus on on-the-job training and training of trainers (ToT) are also considered appropriate approaches to transfer skills in this project. However, the ET noted that the capacity development programme was not designed taking into account the skills and knowledge of MAF staff, and that the level of the training was often too advanced. A skill gap analysis and the identification of training needs were not carried out to design the capacity development component of the project; such a preparatory exercise could have ascertained the "pre-requisite skills and knowledge" of the participants for the planned trainings.

*Was the project adequately designed to adapt to the changes that occurred during the implementation process?*

35. The project was designed with some flexibility that allowed changes at project start-up when the design was reviewed. In fact, during the inception phase (2012) the initial design was revised and both the logical framework and the budget were modified to ensure clarity, consistency and balance between activities and inputs. The changes supported the efficient implementation of the project and facilitated achievement of the project outcome and impact.
36. During the implementation, the main opportunity for improving the project design was the elaboration of the annual work plans. The project design envisaged the establishment of a national steering committee to monitor the project implementation and make the necessary changes to adapt it to new situations and improve it. However, this committee was not very effective, as discussed in the next section of the report. In addition, a mid-term evaluation, which was planned but did



not take place due to financial constraints, could have been a good opportunity to adapt the project to some institutional changes.

## 3.2 Assessment of project implementation

### Institutional arrangements

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**Finding 3: The institutional set-up of the project was well conceived, as it promoted the ownership of NIEWS by MAF. The project was positively affected by two major institutional MAF reforms (e.g. upgrading of the Food Security Unit), but there were also some drawbacks, such as the reallocation of well-trained staff.**

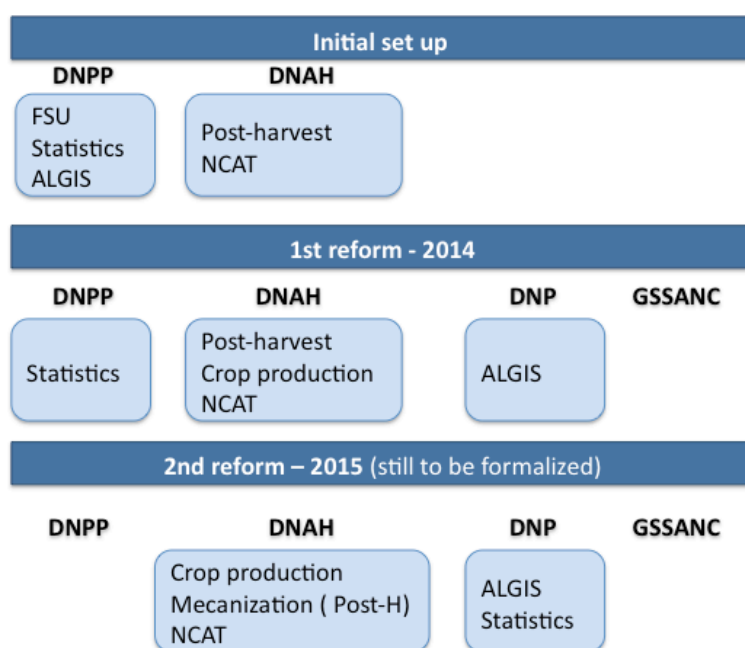
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37. MAF and particularly the National Directorate for Policy and Planning was the main counterpart of FAO for the implementation of the project. FAO technical staff was located at MAF offices to ensure ownership of NIEWS by the Government. This location was also part of the capacity building strategy, which had a strong focus on continued on-the-job training of national staff, aimed at ensuring the sustainability of NIEWS. The project staff and consultants worked closely with the relevant departments of NDPP and the National Directorate of Agriculture and Horticulture.
38. Eight ministries and two Secretaries of State<sup>9</sup> were involved in the project through the KONSSANTIL Technical Working Group<sup>10</sup> by providing national level information relevant to food and nutrition security, such as: nutritional status (Ministry of Health); vulnerable households (Ministry of Social Solidarity); food imports (Ministry of Tourism, Commerce and Industry); school feeding (Ministry of Education); and Consumer and Food Price Index (Ministry of Finance).
39. The Project Management Unit was headed by the Director of the NDPP (as the National Project Coordinator) and composed of the FAO CTA and the food security and statistics national officers. The National Steering Committee (NSC) comprised the Director General of the MAF, a European Union representative, the head of the Project Management Unit and the CTA. NSC met once a year to review the progress of the project implementation. The ET believes that NSC was not always effective in analyzing the operational constraints the project encountered (e.g. delays, budget allocations) and making adequate decisions to improve the implementation, mainly due to the high turnover of the EU and MAF staff.
40. MAF has undergone two major reforms during the life of the project that have significantly affected the project implementation (see Figure 1). A positive consequence of the reforms was the upgrade of the Food Security Unit (FSU) (initially under the NDPP) to a national director level, the Secretary for Food Security Sovereignty, Nutrition and Cooperation. Since the second reform was ongoing at the time of the evaluation, it was still uncertain what will be the future institutional level of the food security department (which is referred to FSU in this report).

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<sup>9</sup> According to the KONSSANTIL structure at the time of the evaluation

<sup>10</sup> The former Inter-ministerial Food Security Task Force (IFSTF)



**Figure 1.** MAF institutional reforms affecting the project

Source: *The evaluation team*

41. MAF institutional reforms resulted in the reallocation of some departments into new national directorates and a significant turnover of heads of department and technical staff. Several technical officers trained by the project were replaced by new staff that lacked the required knowledge and skills to run the system. The replacement took place in late 2014, and therefore, the time needed for building the capacities of the new officers was insufficient.
42. In addition, important modifications in the inter-ministerial food security coordination structure, KONSSANTIL, were carried out during the project implementation. Annex 4 shows KONSSANTIL organizational charts. The definition of the new roles and functions of the KONSSANTIL bodies was very cumbersome, diverting time from fruitful discussion on the food security and nutrition situation and other coordination activities.

### Project management

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**Finding 4. The project was efficiently managed by the project team and received adequate technical backstopping from FAO. It produced good annual progress reports but did not establish a proper M&E system.**

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43. The project was efficiently managed by the CTA. Even though the CTA lacked some technical skills, her knowledge of the country, language skills (Tetum) and excellent working experience with the government of Timor-Leste were essential to maintaining the momentum of the project, as well as ensuring the Government’s involvement and enhancing the ownership and sustainability of the intervention. During the inception phase, it was agreed to allocate some funds to hire a Food

Security and Early Warning Consultant to cover some of the technical gaps of the CTA; the consultant provided a significant support to the preparation of the first bulletin in 2012.

44. Technical backstopping was provided by FAO's Regional Office for Asia and the Pacific (FAO-RAP) (Agricultural Statistician and Project Lead Technical Officer) and FAO HQ (Food Security and Early Warning, Agro-meteorology and Remote Sensing, and Nutrition). Four technical experts conducted periodic missions throughout the project implementation phase to provide technical support and guidance in their relevant areas of expertise. Nonetheless, there was some indication that the project received limited overall supervision in terms of guidance on management issues, for example, in relation to the M&E system or financial matters, as the Lead Technical Officer's assistance mainly focused on the agricultural statistics component of the project.
45. The project had a good reporting practice. The annual progress reports prepared by the CTA provide detailed information of the progress achieved in term of activities, outputs and expected results, in addition to the challenges during the implementation process and the relations with the main partners. In addition, the annual reports encompass the action plan for the following year. The three annual reports offer a great deal of information and have contributed to this evaluation substantially. Unfortunately, the final report was not available at the time of the evaluation, due to the project extension until 31 July 2015.
46. Several levels of M&E activities were envisaged at the design phase of the project: (i) the M&E Unit of MAF is responsible for ensuring the quality of implementation, identifying constraints and challenges and proposing corrective measures in a timely manner; (ii) FAO Timor-Leste is responsible for ensuring the effective implementation of the project; and (iii) FAO RAP and FAO HQ are responsible for conducting periodic technical and operational backstopping missions to monitor project activities and results. In addition, a mid-term evaluation was envisaged. In the end, the project did not establish a proper M&E system with adequate monitoring tools, annual planning exercises and financial resources. The CTA was the main person responsible for monitoring project activities, as the M&E unit of MAF was under restructuring during the life of the project. Monitoring was mainly done at the activity and output levels. It should be noted that quantitative targets for output indicators were not established, as all targets were qualitative.

### **3.3 Assessment of the project's contribution to results**

47. The assessment of the project's contribution to results focuses on the following key evaluation question and three sub-questions, corresponding to the two project outputs and outcome:

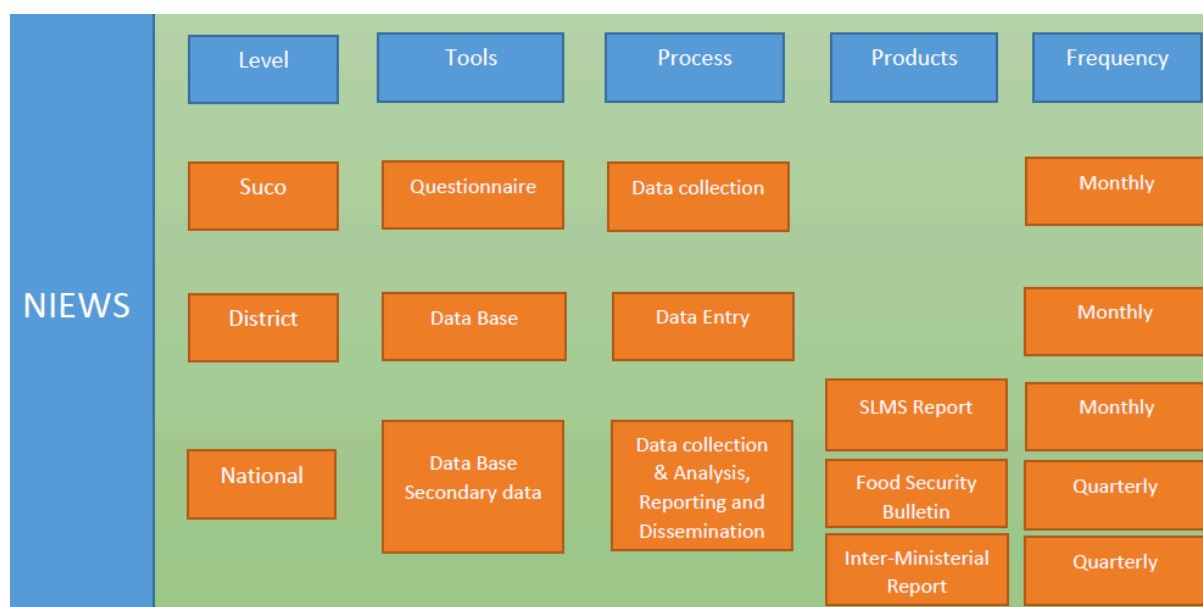
#### **Question 2. What has the project achieved vis-à-vis its planned objectives?**

**Finding 5: The project has effectively contributed to the establishment and functioning of NIEWS as the national information system that provides information on food security from the villages to the national level. Although the information collected is relevant, constraints have been identified in the consistency due to frequent disruptions of the extension workers in collecting local data.**

**The project has also enhanced the capacity of MAF technical staff in their relevant areas of expertise. Nonetheless, the high turnover of staff may have limited the benefits of the enhanced knowledge, which is also being constrained by the changes in the organizational structure of MAF. The information generated by NIEWS has proven to be useful for making decisions related to food security.**

*Does the NIEWS on food security collect accurate data, and analyze, report and disseminate it to stakeholders regarding trends and alerts of food security status at all levels?*

48. NIEWS has been successfully established through the technical and financial support of the project. NIEWS works as a bottom-up information system, bringing primary data from the local (sucos) to the national (MAF) level, where it is complemented by secondary sectoral information (see Figure 2). Overall, NIEWS is well established, embedded in the functions of MAF and KOSSANTIL, and equipped with effective tools of data management, such as the user-friendly online database. NIEWS products enable decision makers to stay regularly informed on the food security situation in the country.



**Figure 2. NIEWS structure**

*Source: The evaluation team*

49. NIEWS is composed of two main elements. The first element is the SLMS, which was designed to collect monthly food security data from 420 sucos in the country. The second element functions at the national level and involves inter-sectoral data compilation provided by the ministries that are members of the KONSSANTIL Technical Working Group. The information is gathered on a quarterly basis, including

updates on nutritional status, school feeding, food imports, vulnerable households and consumer prices. NIEWS is housed in MAF and managed by the Food Security Unit with a strong involvement and commitment of other MAF departments and stakeholders.

### Data collection

50. The extension workers (EW) are responsible for the monthly data collection of the SLMS. They benefited from extensive training (workshops, on-the-job training and refreshment sessions) on data collection. The project contributed to simplifying and improving the questionnaire currently used by the EW. The revised questionnaire now includes quantitative information on agriculture, livestock, fisheries, availability and price of main staple foods in the local markets, and access to finance, as well as qualitative remarks on the food security situation in the sucos. Data is collected and validated in monthly meetings with the chiefs of aldeia<sup>11</sup> and the chief of the suco. In general<sup>12</sup> these meetings do not involve key informants or focus groups, such as farmers or traders, whose participation would be important to complement and crosscheck the information provided by the local authorities.
51. The questionnaires are delivered to the sub-district MAF coordinator, who in turn delivers them to the FSO at district level. The FSO are responsible for data compilation and entry into the database. The role of the sub-district and district MAF staff in relation to NIEWS is not straightforward. In some districts the directors are involved in the monitoring of the information provided from the sucos to ensure its quality. In others, the unclear accountability line<sup>13</sup> caused delays in the submission of the questionnaires. The EW team noted that meetings with the EW are not regularly held in the district to identify bottlenecks and solutions.
52. The SLMS is designed to collect information from 420 sucos<sup>14</sup> in the country on a monthly basis; however, this data collection exercise was not always carried out regularly. On average, 330 sucos (80 percent) submitted the questionnaires on time in 2012, and 290 sucos (70 percent) in 2013 (see Figure 3). This trend worsened in 2014 (58 percent), and dropped to 50 percent in the first half of 2015. Those EW interviewed justified the low submission rate due to work overload, logistical constraints (especially in the rainy season), insufficient financial resources for transport and communications, and the low availability and participation of the chief of suco in the monthly meetings. It should be noted that the low coverage poses a problem for representativeness of the sucos, as a sampling methodology was not developed in the SLMS.

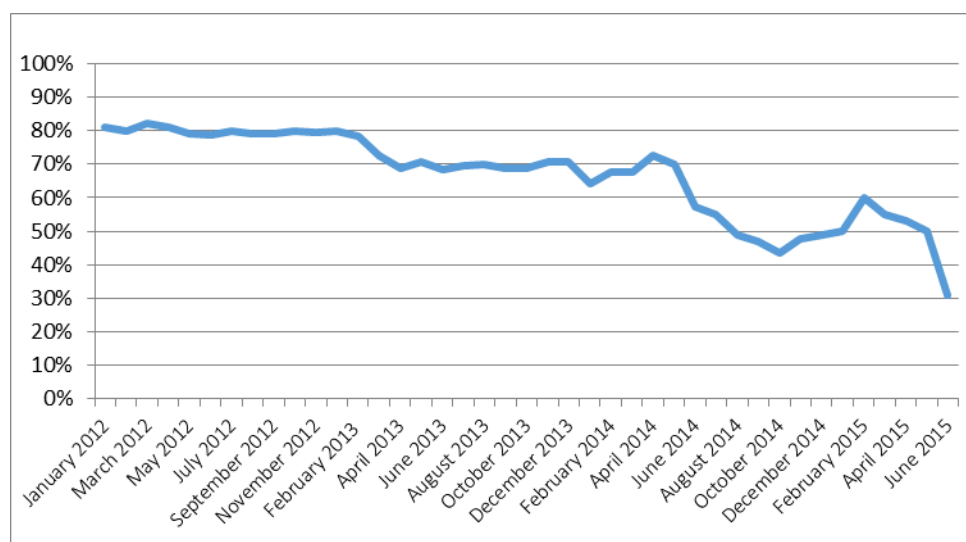
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<sup>11</sup> A suco is composed of several aldeias that are the smallest administrative unit in Timor-Leste

<sup>12</sup> In the interviews with representatives of Soro village in Ainaro district, the ET was informed that the EW usually discussed agriculture information with farmer groups.

<sup>13</sup> EW are accountable to the District Director of Extension while the FSO to the Technical Department Director.

<sup>14</sup> The sucos not included are the one in the urban area of Dili



**Figure 3.** Submission rate of monthly questionnaires

Source: NIEWS database

53. Members of KONSSANTIL provide secondary data for the elaboration of NIEWS products. They were trained by the project in data analysis and the design and preparation of the Food Security Bulletin (FSB) and the Inter-Ministerial Food and Nutrition Security Report (IMFNSR). Some delays in the submission of information from the ministries’ data systems were highlighted as a constraint for the timely preparation of the quarterly products. These delays impact the overall delivering process of the NIEWS products as well as the availability of timely information on food security for government planning and programming.

### Data management

54. The FSO were trained on data collection and data entry. In the interviews conducted with the ET, the FSO stated that the SLMS questionnaire and the database were clear and straightforward and that the data entry process was easy and smooth. On average, they were able to enter monthly data into the database in a couple of days. However, data entry was carried out manually which made the process more sensitive to potential errors.

55. In relation to the questionnaires, the FSO underlined that the repetitiveness of some questions may lead to errors in the data entry. An example was given regarding the cultivated areas (sections 1.1, 1.2, 1.3, 1.5). Considering this information is collected on a monthly basis, this may lead to cumulative data of the same variable (e.g. cultivated area during field preparation and planting) from one month to the next. In this regard, the ET noted the lack of standard procedures for data quality control aimed at reducing the occurrence of errors along the process of data collection and entry.

56. Data accuracy on cultivated areas and crop production is a concern for MAF and other stakeholders. As the agriculture census was not yet conducted, information on cultivated areas of the main staple crops (maize and rice) are based mainly on rough estimations provided by the chiefs of aldeia and the EW. For areas irrigated and ploughed by tractors, data is estimated by the mechanization service and therefore is

likely to be more accurate. Errors in the estimation of cultivated areas may be transmitted in the calculation of staple food production<sup>15</sup>. As a result, national crop production might have a bias due to the low accuracy of data on the cultivated areas. In the survey conducted by the ET, some respondents pointed out inconsistencies between the actual cultivated area and the total food production in the FSBs.

### Data analysis and reporting

57. With the technical support of the project, the FSU staff runs the analysis of the SLMS data on a monthly basis. Results are automatically generated by the database software "SMSANS" at district and national level. The system allows trend analysis in time series (e.g. quarterly, biannually)<sup>16</sup>. Despite the bulk of information collected at suco level, few trend indicators are analyzed and reported in NIEWS products. For instance, crop production figures are compared annually but not seasonally, which is more important for areas of Timor-Leste where two harvests per year occur (as the rainy season is bimodal, with an estimated of 10% from the first season in some areas). Furthermore, information collected in the suco questionnaire on coping strategies at community level (e.g. sale of animals) is not included in the FSB, thus overlooking the importance of this indicator to explain how communities cope with food insecurity issues.
58. The FSU staff produced two quarterly NIEWS products: the FSB and IMFNSR. The information in the FSB focuses more on the supply side (crop production and food availability in the country) than on food access and utilization /the latter is estimated by proxy indicators such as stunting, wasting and undernutrition). Trend analysis is limited to few indicators, therefore the FSB does not provide decision makers with complete information (including key indicators pointing to an improvement or deterioration of the situation in the country) on the evolving food security situation and any triggering action if required. The IMFNSR provides more detailed information than the FSB. However, the IMFNSR has certain limitations in the analysis of the food security situation. The reports present a wide range of sectoral indicators (related to the data systems of the KONSSANTIL ministries), but it lacks a clear methodology or tool for measuring food and nutrition security. This raises a question on the criteria used for targeting the most food insecure.
59. The evolution of food prices is monitored and regularly reported in NIEWS products. The sources of price data are the SLMS and the Department of Statistics. Tracking monthly prices helps the MAF identify price fluctuations (e.g. seasonal: lean period versus post-harvest stage). Price analysis provides a great deal of information on food access and availability and it can flag potential supply and demand problems. Food price trends are also monitored, considering that vulnerable households spend most of their income on staple foods. Such information is very useful to making or reviewing plans and policies in MAF and in the other Ministries in the KOSANTIL Technical Working Group.

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<sup>15</sup> Food production is calculated by multiplying the crop yield (estimated by the crop-cutting methodology) and the cultivated areas of each crop

<sup>16</sup> Trend analysis can be conducted by downloading raw data from the database in a CSV format and, afterwards, processing data by means of excel or any other statistic software.

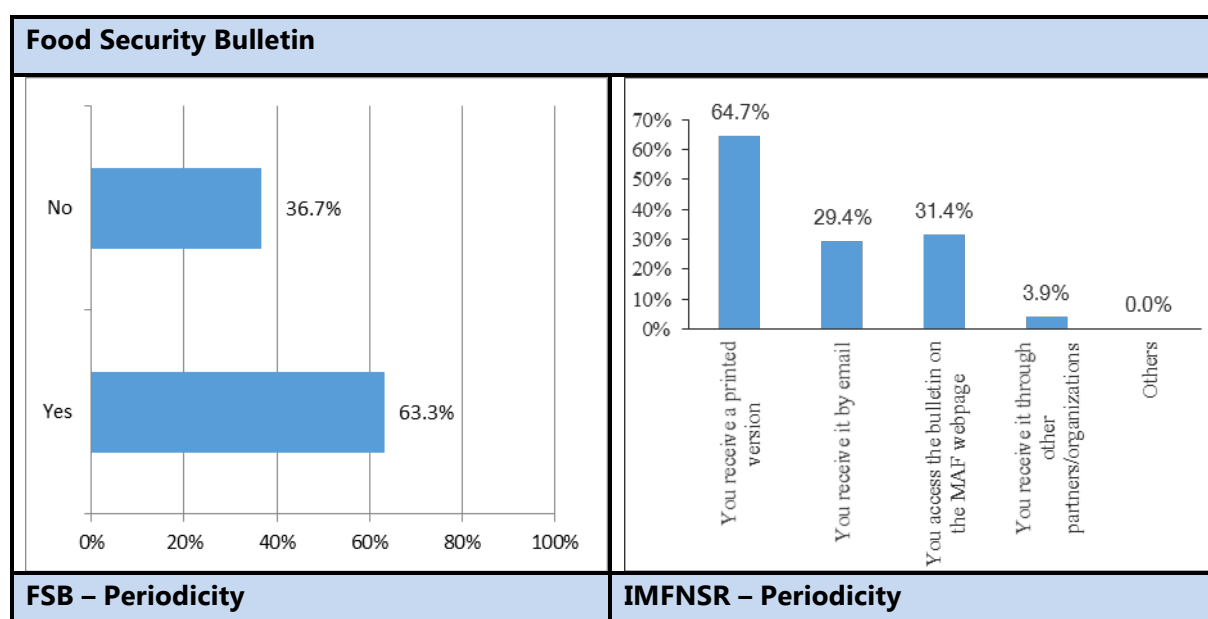
60. In the FSB, price analysis includes trends of international prices in the Asia region (e.g. rice export price of India, Thailand and Vietnam) as well as the domestic retail price of maize and rice (subsidized and commercial). The analysis is complemented with information on monthly and annual inflation of food and non-food prices. The selected commodities for price analysis (e.g. maize, rice, meat, vegetables) are appropriate, as these staple foods constitute an important part of household food consumption and expenditures. Information on retail prices in the districts and sucos is not regularly reported in the FSB.
61. In addition, NIEWS provides information on the environmental conditions (rains, NDVI, VHI) in order to analyze how the agricultural seasons of the main crops (maize, rice) progress, and to infer the possible implications for food security. Climate information (weather and vegetation data) is very important as it complements the analysis of seasonal perspectives for crop production (e.g. providing alerts in case of long dry spells and the risk of an impending drought in some agricultural areas). Even though the forecasting models were not yet operational due to inadequate yield statistics and ground weather data, NIEWS products have the potential to provide the relevant alerts.
62. The ET noted that NIEWS products do not provide some information that would contribute to a better understanding of trends in the food and nutrition security situation, such as:
- The price analysis lacks information on farm-gate and wholesale prices, both national and district level, as well as on the prices of major cash crops (coffee). ToT indicators are also missing.
  - The sale price of livestock is collected at suco level but not reported in the reports.
  - The wages of agricultural daily labour should be included as a proxy of food access, as this is normally an important income-earning activity of rural households.
  - A food security outlook should be provided for the upcoming months, including a brief explanation on how the situation is likely to evolve and the identification of potential shocks.
  - Maps should be included to highlight the most food insecure areas, hotspots and other relevant information for a quick understanding of the food security situation and recent changes in the country

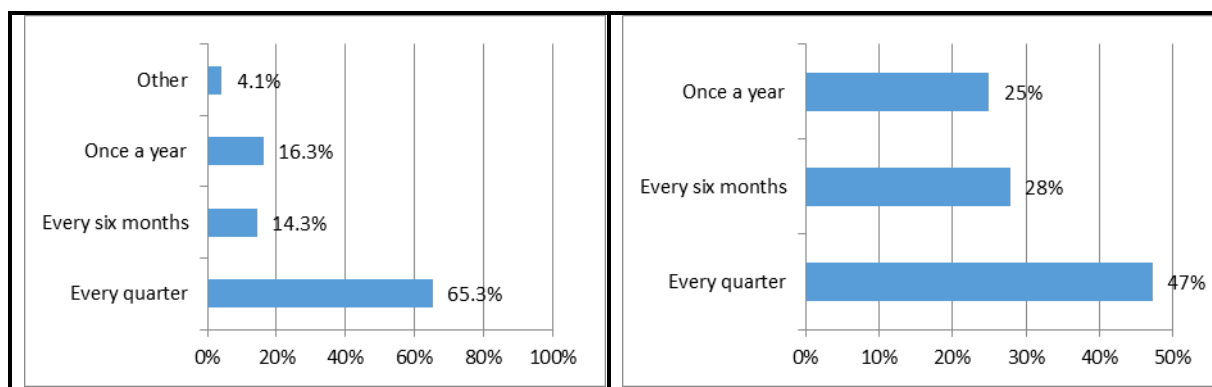
### **Dissemination and use of information**

63. The project supported the quarterly publication of the FSB and the IMFNSR (150 copies in Tetum and 50 copies in English of each issue). The FSU was responsible for delivering the quarterly issues to the IT department at MAF for uploading on the MAF website. The printed copies were distributed mainly to the MAF Departments and to the KONSSANTIL members during the meetings. The remaining printed copies in Tetum were sent to the districts. The FSU also distributed electronic copies through a mailing list. At the time of the evaluation, the latest issues on the MAF website were the Issue No. 10 of the FSB (Quarter I of 2015) and Quarter II 2013 of the IMFNSR.



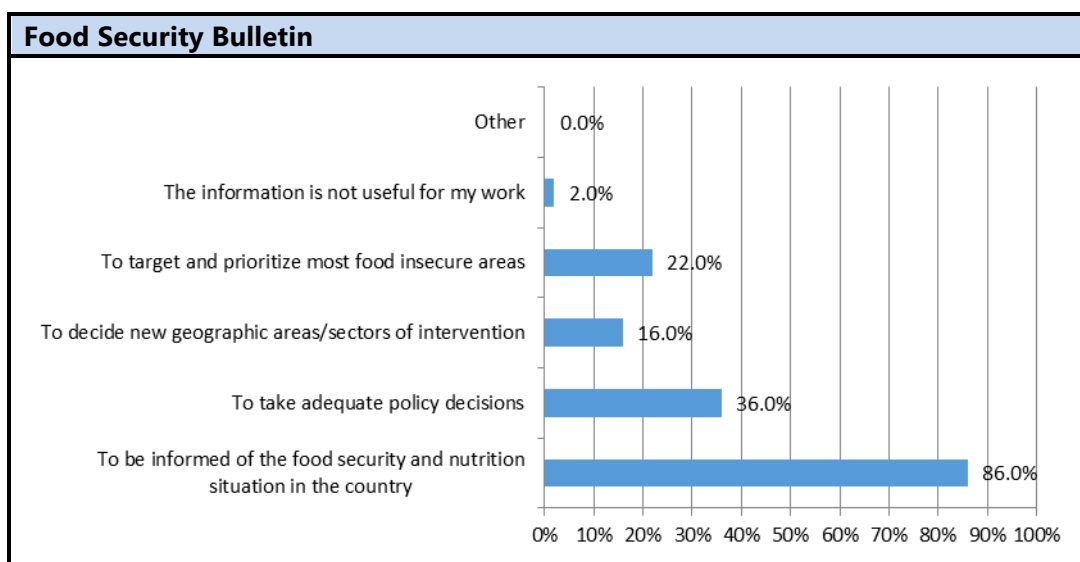
64. The dissemination of NIEWS products is mainly among MAF staff and other partners at central level (Dili). The few copies received in the districts are for the MAF district directors/coordinators that sometimes share the bulletins with the EW when they are in the district capital. According to the results of a survey carried out by the ET, 63 percent of the respondents received the FSB while only 44 percent received the IMFNSR. The dissemination of NIEWS bulletins and reports was even more limited at suco level where local authorities rarely received an issue. Poor feedback from “centre” to “local” was explained as one of the main reasons for the irregular submission of the questionnaires in some sucos. The lack of “evidence” discouraged the local authorities and the EW as they could not appreciate any “tangible” results of the work done to collect data on monthly basis.
65. The survey reveals that a large portion of the respondents who received the FSB received it in hard copy (65 percent), while 32 percent accessed the bulletin on MAF’s website and 30 percent received it by email. The circulation of the FSB among partners and organizations is extremely limited (3.9 percent). In terms of frequency, 65 percent of the FSB recipients received it on a quarterly basis while the remaining 35 percent received it every six months or once a year. The frequency of the IMFNSR is more irregular; only 47 percent of the recipients receive it every quarter. A breakdown is provided in Figure 4.
66. The great majority of respondents (94 percent) and the entire group (100 percent) considered the FSB and the IMFNSR respectively as a relevant source of information on food security in the country. The survey shows that 36 percent of the respondents consider the bulletin appropriate to inform policy decisions; 22 percent to target the most food insecure areas; and 16 percent to select new geographical areas/sectors of intervention. Only one respondent considered the FSB as “not useful for his/her work at all”. Overall, the results indicated that respondents appreciated the FSB and considered it an important source of information to support decision making on food security-related issues.





**Figure 4.** Frequency of NIEWS products

Source: NIEWS User survey, 2015



**Figure 5.** Main uses of the NIEWS information

Source: NIEWS user survey, 2015

67. In summary, Box 2 shows the main factors that contributed to the achievement or non-achievement of the first Output of the project: “National Information and Early Warning System (NIEWS) on food security managed by the Food Security Unit of the Ministry of Agriculture and Fisheries (MAF) disseminates accurate data to stakeholders regarding trends and alerts of food security status at all levels”.

**Box 2.** Factors contributing to the achievement or non-achievement of Output 1

Factors contributing to the effective functioning of NIEWS
Ownership of NIEWS by MAF
Well-designed database, hosted online, “user-friendly” with great potential (additional applications)
Monthly data collection at suco level based on the SLMS (operational since 2010)

Useful revision of questionnaires: more straightforward and less time consuming

Smooth data entry at district level

Coordination meetings (KONSSANTIL TWG) for joint food security situation analysis

Well-designed NIEWS products with essential information on food security and nutrition

Enhancement of technical capacities and skills of MAF staff

### **Factors hampering the proper functioning of NIEWS**

Low submission rate of questionnaires from the sucos. Problem of representativeness of results at national level (sampling)

Some information is not collected as a proxy of food access (i.e. price of cash crops, wages) and trend analysis is limited

NIEWS products do not report on food security outlook. Lack of maps to facilitate a quick look at the food security situation/hotspots

Dissemination mainly at national level. Poor feedback to the sucos and districts

Delays in the upload of NIEWS on MAF website

*In what way did the project enhance the capacities of MAF (the National Directorate for Policy and Planning, Extension Services and FSU) to conduct and manage food security data collection, analysis, reporting and dissemination, and in the coordination with stakeholders in the food security sector?*

68. The project has succeeded in training more than 600 technical staff of national and district MAF and KONSSANTIL. The training covered technical topics (e.g. data collection and analysis, management and maintenance of the database, crop cutting methodology, agro-meteo data collection and analysis) as well as other skills (e.g. report writing). The majority of MAF staff had very limited technical capacities at the beginning of the project but were able to successfully manage and operate NIEWS by the end. Along with training of individual staff, the project has enhanced the institutional capacity of the Food Security Unit, Department of Agricultural Land Use Geographic Information Systems (ALGIS) and Agro-meteorology, Department of Statistics, and the Department of the Post-Harvest of MAF, as well as the inter-minister coordination of the KONSAANTIL.

69. The project trained 23 MAF staff (including FSO) in data entry, database management and maintenance to improve the overall functioning of the NIEWS database. Thanks to the capacity building initiatives, the level of computer skills and knowledge of technical staff has been enhanced to manage and maintain the database system. Throughout the project, the FSO and the Statistics Department staff acquired skills and experience in managing the online application as well. The project also trained the EW in data collection. In the interviews held with the EW, they expressed their appreciation of the training received on the suco questionnaire (reviewed in the first phase of the project), that enabled them to improve their knowledge and skills on field data collection.

70. The staff of the Directorate of Agriculture and Horticulture and the EW were trained on agriculture data collection, including training on crop monitoring and assessment, field demonstrations, and area and yield measurement exercises. Overall, training on crop cutting was a milestone of the project in rolling out a “standard” methodology on yield estimation of the main staple crops (rice and maize) in Timor-Leste. The crop cutting survey method, which is considered user-friendly, has been recently adopted by MAF as the national methodology. The crop manual and tools are currently used to conduct the annual crop assessment.
71. In addition, the Statistics staff was trained in the analysis of the SLMS data, and the FSU staff in the analysis of indicators for the FSB and the IMFNSR. The capacity of the FSU staff was also enhanced in reporting and dissemination of NIEWS products. However, the ET noted that the project CTA played a key role in preparing the FSB and IMFNSR until their last issues (in the second quarter of 2015), although the roles and responsibilities were assigned among the FSU staff during the last phase of the project.
72. ALGIS and Agro-meteorology staff were trained in the access and analysis of satellite weather data, the preparation of the Agromet bulletin, and the calibration of weather stations. The capacity building encompassed the use of the rice yield forecasting model for the ALGIS staff. ALGIS still needs technical support in order to apply the forecasting models once appropriate data is available. See Box 3 for detailed information on the Agromet Bulletin.
73. Beyond the formal training, a key element of success was the continuous on-the-job training and refreshment training of MAF staff by international consultants and the project staff (see Annex 5 for a list of the training carried out during the life of the project). It should be noted that the dedication and commitment of the CTA added value to the capacity development component of the project. The ET verified that the project did not carry out any post-training assessments or evaluations, which is generally a useful tool to gain an understanding of the strengths and weakness of the training.

**Box 3.** The Agromet Bulletin

AGROMET is a monthly bulletin developed by ALGIS on climate conditions in Timor-Leste. The bulletin provides information on the progress of the agricultural season and monitors potential climate risks (drought, floods) ahead of time so that preparedness actions can be put in place.

The bulletin informs on the seasonal indicators, such as the estimated precipitation (rains) and the vegetation conditions (NDVI and Vegetation Health Index). Data is generated every ten days by satellites (remote sensing), and analysed in comparison to long-term averages to identify anomalies (deviation from the norm) that may detect climate risks. The results of the analysis are available on the [FAO/GIEWS website](#) with graphs and maps on 13 districts of Timor-Leste.

Graphs and maps are regularly downloaded by ALGIS and stored in a data repository. ALGIS staff, with the technical support of the project, prepare the contents of the monthly bulletin that focuses on indications provided by the seasonal indicators. The interpretation of trends is related to the cropping cycle (planting, flowering stage, harvest) and water resources, and can offer guidance on agricultural production.

**Limitations:**

Some limitations have been identified in the analysis of indicators in the bulletin. Remote sensing data has not been tested and validated with ground information (e.g. rains, wind, temperatures) due to the poor functioning of MAF weather stations. Furthermore, seasonal indicators report on the average value at district level (Administrative level 1), where situations may vary widely due to the different agro-climatic conditions. Therefore the indicator may not capture the variability of the situations within the same district.

Moreover, the bulletin does not include forecasting information on rains and weather conditions that could help technical staff identify the implications for food security. Along the same lines, reporting should be focused on the most probable scenario for the next three months in the country, depending on the crop calendar.

**Dissemination:**

The dissemination of the Agro-meteorology bulletin is limited (not received by 64.6 percent of the respondents of the survey). The Agro-meteorology bulletin is mainly disseminated in a printed version, with low circulation via website or email (less than 15 percent for both).

In terms of usefulness, the user survey respondents positively rated the Agro-meteorology bulletin. In particular, it provides useful information on the rainfall trends and on the crop production situation in the country. The bulletin further supports decisions about new geographical areas (29.6 percent of respondents), adequate policy decisions on crops (22.2 percent) and target areas that may have experienced crop failure (22.2 percent).

74. Box 4 summarizes the main factors that contributed to the achievement or non-achievement of the second Output of the project "Enhanced capacity of MAF, including the National Directorate for Policy and Planning, the Extension Services and the FSU, to manage food security data collection, analysis and dissemination and to coordinate stakeholders in the food security sector".

**Box 4.** Factors contributing to the achievement or non-achievement of Output 2

**Factors contributing to enhance the capacities of MAF staff to operate NIEWS**

Preliminary assessment of the institutional capacity gaps

Extensive training programme: formal, on-the-job and refreshment training in relevant areas

Competent and professional trainers

Continuous follow-up

Theoretical session complemented by field demonstrations and tests

### Limiting factors of the capacity development component

No assessment of individual capacities and skills

High staff turnover

Limited experience of the FSU in the elaboration of the NIEWS products.

Lack of some technical devices limited the application of knowledge gained in the training (e.g. cables for data logger, licence of statistics software)

Low mentoring of field staff (EW)

### Question 3. What changes can be observed, in terms of use of NIEWS, as a result of the project?

*To what extent have the Government and other stakeholders used the information provided by NIEWS to make appropriate decisions for improving the food and nutrition security of Timor-Leste?*

75. In 2014, the FSB and IMFNSR started influencing decision making by the Government at a national level in matters related to food security and nutrition. That same year, the Government carried out the review and modification of the 2005 Food Security Policy. The revision was triggered by the information generated by NIEWS. The new policy will soon be approved by the Council of Ministers. In addition, NIEWS bulletins and reports were also used to identify the priority activities included in the Zero Hunger National Action Plan (launched in July 2014).

76. Moreover, in early 2015 the Government issued a Decree Law in relation to rice imports: private rice importers had to declare their monthly stocks before receiving a permit to import more rice. The decision was made based on the information provided by the FSB on the alarming rate of rice imports, and also on the recommendations of the KONSSANTIL Technical Working Group to improve rice import management and avoid a negative impact on local rice production.

## 3.4 Analysis of cross-cutting issues and sustainability of results

### 3.4.1 *Gender*

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**Finding 6: Gender was scarcely considered in the project design or during the project implementation. Although a national household food and nutrition security survey was initially planned with gender-disaggregated data, this activity was cancelled. In addition, women’s participation in capacity development activities was quite low, which was partially justified by the higher number of men in the MAF staff. Nonetheless, more focus and commitment to gender equality could have been given, taking into consideration the key role women play in household food security and nutrition as well as in the economic activities related to agriculture development in Timor-Leste.**

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77. Gender was scarcely considered in the project design. The project document envisaged the implementation of a national household level food and nutrition security survey including gender-disaggregated data. However, this activity was cancelled during the inception mission since MAF's partner Seeds of Life had already conducted such survey. This is the only reference to gender in the project design; majority of project activities were gender neutral.
78. The majority of NIEWS information is collected at village level (suco level) and is gender-neutral (e.g. production, food prices, livestock). The system does not include information at household level, and therefore the project was unable to assess specific household level challenges for women as initially envisaged.
79. As mentioned in paragraph 47, the extension workers are responsible for data collection at suco level. In two of the districts visited, the ET noted that only male extension workers were provided with motorbikes to carry out their duties. According to MAF officers, the motorbikes provided were too heavy for women; however, the officers in question did not show much concern for this issue.
80. In relation to the capacity building component, the project trained MAF staff from key departments (e.g. FSU, Statistics, Agro-met, Crop assessment, Extension) at national and district level regardless of whether they were male or female. Overall, 81 percent of people trained by the project were men and 19 percent were women. The proportion of men working at MAF explains such bias (e.g. 372 extension workers are men and only 40 are women).
81. The evaluation observed a need for capacity development with regard to gender. Gender was generally equated with ensuring that an equal number of male and female staff participated in trainings. If information at household level is to be collected in the future, MAF staff needs to be trained on how to collect and analyze gender-disaggregated data to assess women's challenges and constraints. Policy makers and programme managers should know how to design and implement projects that are relevant and sensitive to gender aspects.

### 3.4.2 *Partnership and alliances*

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**Finding 7: The NIEWS project has succeeded in establishing and consolidating partnerships with a broad network of institutions engaged in food security, nutrition and climate change in Timor-Leste. The setting up of KONSSANTIL was a tangible result of the work done by the project in networking and liaising with government institutions, development partners and NGOs, at national and district level. It is worth mentioning the effective collaboration with GIZ, Instituto Camões and the Australian Seeds of Life project, which paved the way to reinforce the technical support provided to ALGIS on the rehabilitation of the weather stations and acquisition of real time data.**

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82. The project played a key role in the coordination of food and nutrition security activities in the country. The CTA was dynamic in networking with government institutions (e.g. MAF, Ministry of Health, Ministry of Education) at national and district level, development partners (e.g. UN agencies, Japan International Cooperation Agency, World Bank) and NGOs for the establishment and strengthening of KONSSANTIL. The NIEWS project also collaborated with the Office of the President and the Office of the Prime Minister in the preliminary arrangements for 2016 planning exercise. A great number of the people interviewed acknowledged and appreciated the coordination role played by the project.
83. NIEWS was a member of the EC-funded Food Security Coordinating Group composed of organizations that implemented food and nutrition security projects. Members of this coordinating group were CARE, Hivos, Oxfam Australia, Mercy Corps, World Vision, GIZ, and World Fish Centre. The project also established sound relationship with other EC-funded projects such as the Rural Development Programs 3 and 4 implemented by the MAF and the Ministry of Infrastructure.
84. In 2014 the project closely collaborated with the EU funded project “Global Climate Change Alliance (GCCA) support programme to Timor-Leste” aimed at improving the capacity of populations vulnerable to climate change to better cope with risks. This project is being implemented by GIZ, Instituto Camoes and Australian DFAT Seeds of Life. These institutions provide technical support to ALGIS and the Agro-meteorology Department on the effective and efficient management and maintenance of the weather station network as well as on the timely collection of information. Coordination with the GCCA project was strengthened during the phasing out of the project leading to some relevant agreements: (i) GCCA support to ALGIS for the continuation of the Agromet Bulletin; and (ii) the acquisition of the weather stations’ sensors to replace those damaged or non-functional based on the recommendation of the assessment on the weather stations network carried out by the project.

### 3.4.3 *Sustainability and ownership*

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**Finding 8: Sustainability was partially constrained by the lack of a comprehensive exit strategy, especially in the handover of responsibilities and tasks to MAF for the preparation of the NIEWS bulletins and reports. Despite these limitations, the Government’s ownership and engagement may result in the continuation of the system. The political willingness, along with the financial viability, should also contribute to the strengthening of the NIEWS system that is of utmost importance to generate relevant and timely information on food security and nutrition at national and district level.**

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85. The analysis of the project’s potential sustainability and ownership focuses on the following questions:

*Did the project develop and implement an exit strategy?*

86. The project has neither developed nor implemented a comprehensive phasing out or exit strategy, although some measures were taken for the smooth continuation of



some project activities. As mentioned in paragraph 81 the project worked closely with the GCCA project to ensure support to ALGIS. GCCA will continue training ALGIS staff while supporting and improving the Agromet Bulletin. With regard to the Food Security Bulletin and the Inter-ministerial Food Security and Nutrition Report, the roles and responsibilities for the preparation of these reports were discussed and distributed among the FSU staff.

87. Nevertheless, the ET considers that these measures were not sufficient to ensure the smooth functioning of NIEWS. The following would have been necessary to ensure greater sustainability of the project: a phasing out strategy by which the FSU staff gradually take over the responsibility of project activities; and an exit strategy prepared in collaboration with the main stakeholders, including institutional and budgetary arrangements.

*To what extent do MAF and other stakeholders own the project achievements?*

88. NIEWS is MAF's information system on food security; there is no doubt of the ownership of the system by the Government. MAF has shown willingness and great interest in the project achievements. In fact, the Minister and the Vice-minister of Agriculture and Fisheries and other high level staff actively participated in the debriefing of the evaluation mission. They inquired about the constraints and weaknesses of the system and the measures that need to be adopted to make NIEWS sustainable. The minister convened a national meeting with the relevant MAF departments to internally discuss these limitations and seek solutions. The ET believes that such concern shown by the MAF minister is a very good indication of project ownership.
89. Development partners, international and national NGOs and other stakeholders highly appreciate the establishment of KONSSANTIL as the national forum for coordinated action on food and nutrition security matters (based on the information provided by KONSSANTIL working groups). They acknowledged FAO's support to this government initiative.

*What are the prospects of institutional uptake and mainstreaming of the Government's newly acquired capacities?*

90. The project included a strong component on capacity building of national institutions in technical skills such as data collection, data processing and management, harvest estimation, processing analysis and report writing, which are key elements for institutional sustainability. As mentioned in para 66-71 staff received on-the-job training and participated in specialized workshops in order to increase their technical capacities. However, the majority of the staff interviewed felt they needed additional and refreshment training. The ET considers that the staff turnover and the lack of an initial assessment of their technical knowledge and skills may jeopardize the institutional sustainability of the project.
91. The GCCA project will strengthen the technical capacities of ALGIS staff, enabling this department to deliver improved Agromet Bulletins. In relation to the other NIEWS areas, namely data collection, analysis and report writing, the ET considers that MAF

would need to establish partnerships with relevant institutions for the provision of the additional training required to adequately operate and further improve the system.

*Which institutional arrangements have been put in place to ensure the sustainability of the program?*

92. The project was designed to support existing institutions and structures within MAF to ensure the institutional sustainability of the intervention. The project worked closely with several MAF departments, and especially with the Food Security Unit that had the main responsibility for NIEWS. As previously mentioned (see paragraph 37-39), MAF underwent several institutional reforms during the life of the project, with some positive and negative effects. The most positive outcome was the upgrade of the Food Security Unit to a Directorate level, becoming the Secretary for Food Security Sovereignty, Nutrition and Cooperation, facilitating its coordination role. As MAF is currently finalizing the latest institutional reform, the ET considers maintaining FSU at the directorate level essential to reinforcing the coordination role of the unit.
93. In terms of financial sustainability, MAF announced in the debriefing meeting of the Evaluation Mission a financial allocation of USD 200 000 for the consolidation of NIEWS. In addition, MAF has other potential sources of funding that could complement the government provision: (i) an EU contribution of USD 80 million as budget support; and (ii) the World Bank Sustainable Agriculture Productivity Improvement Project that still needs to be defined based on MAF's priorities. The ET considers that if MAF has the political will for the consolidation of project activities, then the financial resources will not be a constraint.

### 3.5 Lessons learned

#### **Question 4. What institutional lessons can be derived from the project implementation?**

94. The project "Establishing a Sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste" provides an opportunity to draw some lessons that could also be relevant to other MAF/FAO projects and programmes. These are the following:
95. ***An inter-sectorial and multi-partner coordination structure is key for establishing an efficient National Food Security Information System.*** The establishment of an inter-ministerial coordination body (KONSSANTIL in this project), with the participation of development partners and other stakeholders, is the foundation of an effective national food security information system. On the one hand, NIEWS is supported by the existing sectoral systems, for which it is essential that the ministries involved reach an agreement on their roles and responsibilities regarding food security monitoring. On the other hand, all stakeholders shall participate in the analysis of NIEWS data, which will enable them to make joint decisions to improve the food and nutrition security situation of the country.
96. ***Assessment of knowledge and skills gaps is crucial to design an effective tailor-made capacity development programme.*** A comprehensive capacity building

programme needs to be carefully designed to meet the needs, priorities and interests of the end users (institutions and/or individuals). It is therefore necessary to conduct an assessment of the strengths and weaknesses at two different levels: individual and institutional. Such assessments ensure the identification of the institutional capacity gaps as well as the individual knowledge and skills gaps. The findings of these capacity assessments should be the starting point for formulating an effective tailor-made capacity development programme.

97. **Feedback and quick response to local alerts contribute to the proper functioning of NIEWS.** Food security primary data is usually collected at village and/or household level by local officers (extension workers in this project) with the collaboration of local authorities. Timely feedback of the information provided and rapid response to any alerts on food security are essential to maintaining engagement and motivation.
98. **Insufficient timeframe for the consolidation of project activities.** A timeframe of three years is far too short for a project of this nature that involves the development of an information system (data collection, analysis and report writing) almost from scratch, as well as training a large number of staff. Moreover, in view of MAF's institutional reforms, additional training was needed due to staff turnover; therefore the time allocated for consolidating these activities was insufficient. A five-year project with a budget of USD 2.4 million (as envisaged in the initial project document) would have been more appropriate.
99. **A phasing out/exit strategy is essential for ensuring the sustainability of project activities and impact.** Projects need to develop a detailed plan describing how the project will withdraw while ensuring that the achievement of its goals is not jeopardized. The strategy should contain a timeframe with clear action steps and the identification of those responsible for taking these steps. The engagement of project staff should gradually decrease while the project counterpart takes over the implementation of activities until they are able to manage the project without external support.

## 5. Conclusions and recommendations

100. Based on the evidence that emerged throughout the evaluation and the identified lessons learned, the ET drew the following conclusions and recommendations. The recommendations aim at providing guidance for future projects that will be designed and implemented by FAO and/or the EU. Moreover, the recommendations seek to provide guidance for the formulation of follow-up interventions implemented by the MAF.

### 5.1 Conclusions

**Conclusion 1. The project has established a well-designed and efficient information system which adequately addresses the specific needs and context of the Timor-Leste government. The system has some limitations and great potential for improvement. Despite its limitations, the information provided by NIEWS has already influenced decision-making at a policy level.**

101. Overall, the project has succeeded in establishing a national information system on food security that provides good quality information to decision makers and other partners to make adequate decisions for improving the food security situation in the country. The system is well designed, with functions and responsibilities duly assigned; it involves all the administrative levels (from suco to national) and produces timely and up to date information on food security-related areas (e.g. agriculture, livestock, market, nutrition). The information provided by NIEWS has already contributed to policy decisions for improving the food security situation in the country (e.g. revision of the Food Security Policy and finalization of the Zero Hunger National Action Plan). The system functions but presents some limitations that may hinder its sustainability. At the same time, the system holds great potential for improvement.

**Conclusion 2. The strong training component of the project has enabled the start-up and smooth implementation of NIEWS. However, insufficient financial resources and inadequate institutional decisions could jeopardize the system regardless of the positive signs for sustainability.**

102. The project succeeded in training more than 600 technical staff of national and district Ministry of Agriculture and Fisheries (MAF) and the National Council for Food Security, Sovereignty and Nutrition in Timor-Leste (KONSSANTIL). As a result of the trainings, the FSU in collaboration with KONSSANTIL Technical Working Group is producing food security and nutrition and agro-meteorology bulletins and reports that are highly appreciated and being used by line ministries, development partners and NGOs. Nevertheless, the high rate of MAF staff turnover makes it difficult to transfer and consolidate the knowledge and skills developed within the project; consequently additional and continued training is needed.

103. The sustainability of NIEWS is still a concern despite the good indications from the Government's commitment, interest and will. The ownership of the system by MAF along with the well-structured institutional set-up clearly contributes to the

sustainability of NIEWS. However, some weaknesses need to be addressed to ensure the smooth and adequate functioning of the system. The main limitations include the low submission rate of primary data from the suco level, and the need for additional and refreshment training on various topics, especially on data analysis and report writing and dissemination. For this purpose, MAF needs to take adequate institutional decisions and allocate sufficient financial resources for the establishment of partnerships with institutions that can provide adequate technical assistance.

104. The trend of decreasing submissions of local food security information needs to be immediately reversed to ensure the continued functioning of NIEWS. Data collection at suco level (SLMS) is the backbone of the NIEWS system; without this information the system would stop functioning. The decreasing rate in the delivery of information from the sucos is alarming (from 80 percent in 2012 to 50 percent in 2015) and needs to be addressed immediately. The low coverage poses a problem for representativeness that the project did not address by developing a proper sampling methodology. In addition, the limited feedback from national MAF and the poor response to local alerts lowered the motivation and engagement of local authorities and MAF district and sub-district staff (particularly EW).

**Conclusion 3. KONSSANTIL, as the national forum to take coordinated actions in relation to food and nutrition security matters, has been crucial for the establishment of NIEWS.**

105. The project has supported the establishment and strengthening of KONSSANTIL as the national food and nutrition security coordination structure. As a result, KONSSANTIL is undertaking multi-sectoral food security analysis in a coordinated manner, supporting the decision making process to address Timor-Leste's food security issues. The project has also advocated for the upgrade of the Food Security Unit to facilitate the coordination among MAF departments for the smooth running of NIEWS. It is expected that the FSU will not be downgraded by the ongoing MAF reform.

## 5.2 Recommendations

**Recommendation 1. To FAO and the EU for the consolidation of the project and technical improvement of the NIEWS.** The ET recommends for NIEWS to be supported with continuous technical assistance in order to make the necessary adjustments and reinforcements that would lead to an even more efficient and accurate food security information system in the country. In particular, technical improvements can be promoted in the following areas: data collection, data analysis, report writing and dissemination.

106. For the consolidation of the project, some actions might include:

- FAO to follow up with the Government to explore any need of additional technical assistance and support;
- Organize a workshop with key national, district and sub-district MAF staff including a significant representation of EW and FSO to seek solutions to the low submission rate of suco information;
- Establish a clear accountability line of NIEWS staff from local to central level;
- Provide the EW with the necessary means to carry out data collection in the sucos, including more suitable motorbikes for the female EW;
- Develop a feedback mechanism from the national level to the district and suco level;
- Explore non-monetary incentives for the EW and local authorities, such as exchange visits, workshops and training;
- Assess the institutional and individual capacities and skills that need to be further strengthened in the relevant MAF departments (FSU, Statistics, Crop Assessment);
- Develop a tailor-made training programme with a special focus on on-the-job training;
- Explore the possibility of additional financial support to continue NIEWS.

107. In relation to the technical improvements of the NIEWS, some suggested actions might include:

- Improve the accuracy of data collection, particularly in the estimation of cultivation areas. FAO should continue to support MAF to develop an improved statistical system on agricultural production and food availability;
- Explore the use of mobile devices for data collection and transmission to the main data storage repository. Smart phones have applications that could also be useful for EW (i.e. GPS for calculating cultivated areas);
- Improve the database by integrating graphs and maps in order to enable users to run trends for monthly, quarterly and yearly analyses;
- Include information on cash crops and wages in the questionnaire in order to report on food access indicators;
- Include discussions with key informants/focus groups in the data collection process;

- Expand outreach of the bulletins by disseminating them using SMS messages, media, radio and television;
- Explore ways to improve the methodology on the measurement of food security. A suitable method could be convergence of evidence developed by Integrated Phase Classification<sup>17</sup>;
- Include new sections on the FSB and IMFNSR to allow a quick interpretation and understanding of the current and future food and nutrition situation in the country (e.g. outlook, brief explanation on how the situation is likely to evolve, and maps highlighting the most food insecure areas and hotspots).

**Recommendation 2: To FAO Timor-Leste for improving project design, management and sustainability:** The ET recommends that a proper phasing out/exit strategy is developed for future projects in order to improve their sustainability. In addition, to improve project management the ET recommends that FAO ensures the implementation of a well-designed M&E system and the provision of overall project supervision and management by the FAO Lead Technical Unit.

**Recommendation 3. To FAO Timor-Leste for improving capacity development programmes:** For future capacity development programmes, the ET recommends developing comprehensive capacity development programmes in a participatory manner, including a thorough assessment of the institutional capacity needs as well as individual skills and knowledge gaps. For this purpose, guidance and support might be sought from the Capacity Development Unit hosted in the Office of Partnerships, Advocacy and Capacity Development (OPC) at HQ.

**Recommendation 3. To FAO Timor-Leste to advise the Government for ensuring the sustainability of the achieved results in terms of the capacity development:** to the extent possible, the ET suggests that FAO advises the Government:

- To minimize the turnover of trained staff;
- To establish a mechanism to ensure the acquired knowledge is transferred among staff in those cases when staff movement is unavoidable.

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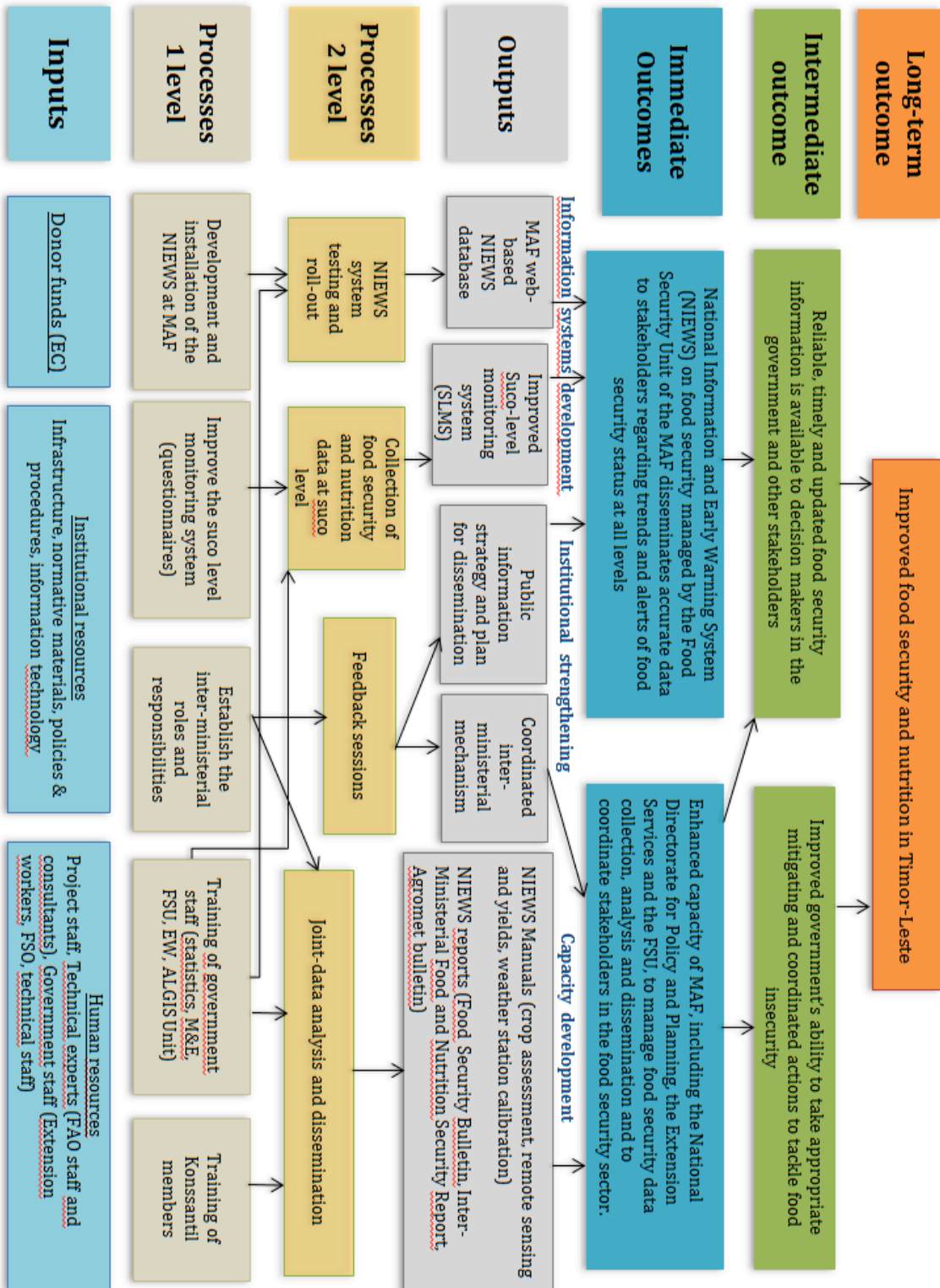
<sup>17</sup> By developing an improved methodology, MAF will be better equipped in identifying food insecurity hotspots and targeting the most vulnerable people. The weather forecasting tools should be further developed and put in place by MAF. This will provide a great deal of information for alerting natural risks and for planning/reviewing plans of agriculture campaigns.

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**Appendix 1. Theory of Change**



## **Appendix 2. List of documents consulted**

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FAO, Project Document "Establishing a sustainable National Information and Early Warning System (NIEWS) on Food Security in Timor-Leste", 2012.

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**Appendix 3. List of people consulted**

<b>People met</b>	<b>Institution</b>	<b>Title</b>
<b>DILI</b>		
Octavio de Almeida	MAF -National Directorate for Policy and Planning	Chief of Cabinet for Policy, Planning and Monitoring
Helder Neves	MAF	National Director for Human Resources, Former head of FSU
Jaime Rangel	MAF Statistics department	CD for Statistics
Sabilio dos Santos	MAF Statistics department	Staff Statistics
Gil R. da Cruz	MAF - GESSANC	National Director for Food Security, Sovereign, Nutrition, and Cooperation
Vasco dos S. Soares	MAF - GESSANC	CD NDFSSNC - MAF
Armindo da Silva	MAF - GESSANC	CD for Planning and Finance, NDFSSNC
Rofino S. Gusmão	MAF - GESSANC	Chief of Dep. for Cooperation,
Suzana C. Vilanova	MAF - GESSANC	Chief of Dep. for Food Security,
Rita M.S. Gusmão	MAF - GESSANC	Staff
Ivone S.C. Lopes	MAF - GESSANC	Staff
Manuel Vitor	MAF - GESSANC	Food Security Officer,
Agustinho Ximenes	MAF - GESSANC	Technical Assistant NAO
Gianluigi Negroni	MAF - GESSANC	MAF Sector Coordination Advisor - EU/MAF
Dedísio J.C. Ximenes	MAF - GESSANC	Technical Assistant NAO
Jose Quintão	MAF ALGIS & Agro-meteorology	CD Algis
Maria Brandão	MAF ALGIS & Agrometeorology	Staff Algis
Rita da C. Soares	MAF ALGIS & Agro-meteorology	Staff Algis, NIEWS Agro. Met. Bulletins
Adina Alves	MAF ALGIS & Agro-meteorology	Staff Algis, GIS
Amaro Ximenes	MAF - NDAH	National Director for Agriculture and Horticulture
Oscar M. Gonçalves	MAF - NDAH	CD Crop Production
Eldino dos Santos M.	MAF - NDAH	CD Crop Production
Serafin Rodolfo	MAF - NDAH	CD Post-Harvest
Agusto Vaz	MAF - NDAH	Senior Post-Harvest Staff
Domingos Mendes	MAF - NDAH	Post-Harvest Staff
Boaventura F.S. Soares	MAF - NDAH	Technical Staff Crop Production
Maria A.F.S. Sequeira	MAF - NDAH	Technical Staff for Crop Production
Joanico Correia	MAF - NDAH	Staff of Crop Production Dep.
Anita	MAF - NDAH	Staff of Plant Production Dep.
Paulina S. Pinto	MAF - NDAH	Staff of Plant Production Dep.
Gil Rangel da Cruz	KONSSANTIL TWG	National Director NDFSSNC, MAF
Gianluigi Negroni	KONSSANTIL TWG	Sector Coordination Advisor
Luis A.R.de Neri	KONSSANTIL TWG	Research Staff, SEM
Belchior M.A.R.L	KONSSANTIL TWG	CD, Ministry of Education
Mario M. dos Reis	KONSSANTIL TWG	Food Security Officer, MoH
Rita da C. Soares	KONSSANTIL TWG	Staff Algis, MAF
Augusto da Silva	KONSSANTIL TWG	Staff DNPP, MAF
Jeorlinda Monteiro	KONSSANTIL TWG	Staff DNASE, ME
Deodísio J.L. Ximenes	KONSSANTIL TWG	Tech. Assistant, EU-NAO/MAF
Rofino S. Gusmão	KONSSANTIL TWG	CD, MAF
Suzana C. Vilanova	KONSSANTIL TWG	CD, NDFSSNC-MAF
Vasco D. S. Soares	KONSSANTIL TWG	CD, NDFSSNC-MAF

Manuel Vitor	KONSSANTIL TWG	Food Security Officer, NDFSSN
Joni Martins	KONSSANTIL TWG	Staff Ministry of Social Solidarity
Armindo da Silva	KONSSANTIL TWG	CD of Planning and Finance,
Ivone S.C. Lopes	KONSSANTIL TWG	Staff NDFSSNC-MAF
Rita M.S. Gusmão	KONSSANTIL TWG	Staff NDFSSNC-MAF
Silvina de Oliveira	KONSSANTIL TWG	Research Student,
Adalfredo do R. Ferreira	MAF - NDR	National Director for Research
Januario Marçal	MAF	General Director for Agriculture and Livestock
João B. da Costa	Ministry of Health	Chief Dep. for Nutrition
Mario M. dos Reis	Ministry of Health	Food Security Officer
Paolo Toselli	EU	Program Manager
Dulce Gusmão	EU	Rural Development Program Manager
John Dalton	Seeds of Life	Project Team Leader
Rob Williams	Seeds of Life	Project Manager
Tiago G. da Silva	Instituto Camoes	Assistant Coordinator, GCCA project
Daiko Hideto	JICA	Project Advisor
Gil Horacio Boavida	HASATIL	Secretariat Coordinator
Raul De La Rosa	HIVOS	Programme Manager
David Roach	CATALPA	Executive Director
Mirko Gamez Arias	GIZ	Programme Coordinator
Cosme Belo Ximenes	GIZ	Programme Advisor
Eric Vitale	World Bank	Programme Coordinator
Isabel Alda da Silva	World Bank	Programme Manager
<b>LAUTEM</b>		
Zito Guimarães	MAF DSAM Lautem	CD Livestock,
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Raimundo A. Fernandes	MAF DSAM Lautem	CD G.M.E. Ag
Edmundo da Costa	MAF DSAM Lautem	CD Ag., Horti, and Irrigation,
Sergio da Silva	MAF DSAM Lautem	CD Admin & Finance,
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Carolino da Silva	MAF DSAM Lautem	Extension Coord. Lospalos,
Olvio Carvalho	MAF DSAM Lautem	Extension Coord. Tutuala,
Duarte da Costa	MAF DSAM Lautem	EW Suco Fuiloru,
Florindo Pereira	MAF DSAM Lautem	EW Suco Tutuala,
Ernesto Brangko	MAF DSAM Lautem	EW Suco Home,
Luciano P. Madeira	MAF DSAM Lautem	Administrative Support Suco Home
Marcelino P. Marques	Suco Home	Chief of Aldeia Larinacha
<b>BAUCAU</b>		
Martinho Ximenes	MAF- DSAM Baucau	Director
Agostinho E. Belo	MAF- DSAM Baucau	CD Extension,
Agostinho F. Xavier	MAF- DSAM Baucau	CD Ag, Horti & Irrigation,
Jaquelina R. Xavier	MAF- DSAM Baucau	Food Security Officer
Teresa da C. de Almeida	MAF- DSAM Baucau	Industrial Plants Officer,
Leonor de A. Araujo	MAF- DSAM Baucau	Crop Production Officer,
Americo S. da Costa	MAF- DSAM Baucau	Ext. Coordination Vemasse,
Nazario da L. Freitas	MAF- DSAM Baucau	EW
Manuel Moreira	MAF- DSAM Baucau	EW
Florindo Filipe	MAF- DSAM Baucau	EW
Mario E. Pereira	MAF- DSAM Baucau	EW
Agostinho A. X.	MAF- DSAM Baucau	EW
Geraldo R. da Silva	Suco Caicua	Chief of Suco Caicua,
<b>ERMERA</b>		
Luis de Deus	MAF-DSAM Ermera	Director,



Afonso A. dos Santos	MAF-DSAM Ermera	CD Extension,
Bernardino Casimiro	MAF-DSAM Ermera	CD
Apolinario Bere	MAF-DSAM Ermera	CD Crop Production,
Francisco Nascimento	MAF-DSAM Ermera	Food Security Officer
Francisco M. Vidigal	MAF-DSAM Ermera	EW Suco Humboe
Joaquim Maia	MAF-DSAM Ermera	EW Suco
Agusto dos Santos	MAF-DSAM Ermera	EW Suco Manusae
Florindo Ximenes	MAF-DSAM Ermera	EW Suco Mirtutu
Julio C. Martins	MAF-DSAM Ermera	EW
Agapito de Deus	Suco Lauala	Chief of Suco Lauala,
Domingos L. de Deus	Suco Lauala	Chief of Aldeia Sari,
Joao S.	Suco Lauala	Secretary of Suco Lauala
<b>AINARO</b>		
Manuela E. Gomes	MAF- DSAM Ainaro	CD Admin & Finance/FSO
Sancho F. Magalhães	MAF- DSAM Ainaro	CD Extension,
Dinis de Jesus	MAF- DSAM Ainaro	CD Livestock & Veterinary
Natalia de Orleans	MAF- DSAM Ainaro	CD Crop Production
Marcos de Araujo	MAF- DSAM Ainaro	Ext. Coord. Ainaro
Orlando da C. Verdial	MAF- DSAM Ainaro	Crop Assistant
Carlos C. do Rego	MAF- DSAM Ainaro	EW
Manuel G. Magno	MAF- DSAM Ainaro	EW
Prisca da C. Araujo	MAF- DSAM Ainaro	EW
Luizinha do C. Pereira	MAF- DSAM Ainaro	EW
Cipriano de Araujo	Suco Soro	Chief of Suco Soro, Ainaro
Alexandre de A. Martins	Suco Soro	Secretary & admin Support, Suco Soro,
<b>FAO RAP &amp; HQS</b>		
Oscar Rojas	FAO HQS	NRC Natural Resources Officer
Cristina Coslet	FAO HQS	EST Food Security Monitor
Mukesh Srivastava	FAO RAP	Senior Statistician





