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# Nutrition-sensitive agriculture programming: addressing demand- and supply-side factors in Timor-Leste

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## Abstract



To contribute to the reduction of malnutrition in Timor-Leste, particularly for women of reproductive age and children aged 6–23 months, the To'os ba Moris Di'ak / Farming for Prosperity program (TOMAK) run by the Dept of Foreign Affairs & Trade, applies a nutrition-sensitive agriculture (NSA) approach. This approach seeks to strengthen the contribution of agriculture to improving nutrition outcomes.

Agriculture is nutrition-sensitive when it addresses the underlying causes of malnutrition. The program focuses on supply-side and demand-side issues surrounding nutrition. On the supply side, TOMAK aims to improve supply and year-round access to nutritious foods – particularly for women and children. This includes building NSA knowledge and skills at institutional as well as community level, and developing gender-equitable decision-making in households. On the demand side, TOMAK is influencing awareness of and demand for nutritious food at the household level through social behaviour change (SBC) communication, to maximise consumption of nutritious foods. To create this change, TOMAK works with and through partners, including NGOs and government. The approach has allowed TOMAK to build on and expand the work of the non-government organisations Mercy Corps, Catholic Relief Services and World Vision and their local partners, as well as providing opportunities to trial new approaches to NSA and SBC in Timor-Leste. TOMAK works closely with the Ministry of Agriculture and Fisheries and Ministry of Health, taking a multi-sectoral approach to augment the Government of Timor-Leste's existing nutrition work and develop increased NSA capacity for delivery in municipalities.

It is great to be here representing the TOMAK (To'os ba Moris Di'ak) program in Timor-Leste. The TOMAK program is a nutrition, food security, and agricultural market systems program. This quite broad program is in its first five-year phase of a ten-year investment by the Australian Department of Foreign Affairs & Trade (DFAT). The program mobilised in mid-2016. For the first eight months or so we reviewed the vast quantities of secondary information and data that are available in Timor-Leste in these key areas, as well as making targeted studies to help us develop our program's guiding strategy. We started implementing our program early last year. As a result we are still in the early phases, so this talk is less about results and more about our approach to the program.

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This paper has been prepared from a transcript and the illustrative slides of the presentation.

## Objectives and locations of the program

The program has dual and interlinked objectives. For Component 1 the objective is to improve food security and nutrition, through nutrition-sensitive agriculture (NSA) and by strengthening the way agriculture contributes to good nutrition. We particularly focus on women of reproductive age (15–49 years) and children aged 6–23 months.

We aim to address both demand and supply in the local agriculture so these women and children can have access to sufficient and diverse food all year round. Ultimately, we hope that:

- more children in this age bracket will have the minimum-acceptable diet, and
- that women of reproductive age will have a more diverse diet.

Component 2 focuses on nudging rural subsistence farmers towards commercial agriculture. Our objective here is to:

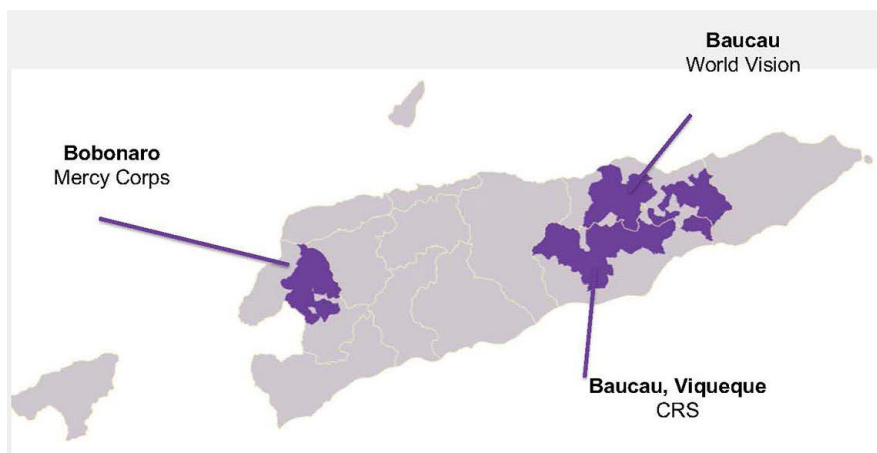
- strengthen overall market systems, so that farmers can make a living at commercial scale, rather than subsistence scale.

Across both components we aim for integrated gender equality and social inclusion throughout.

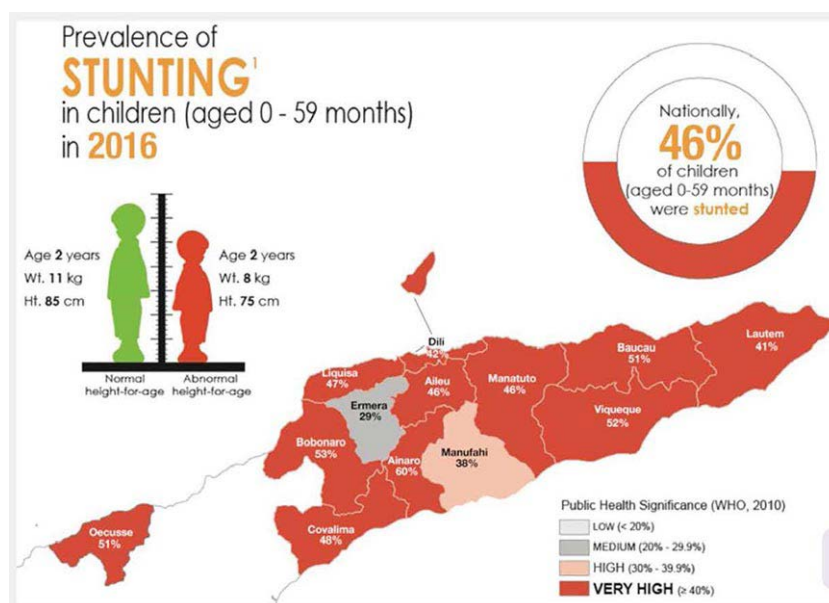
There has already been extensive work on both components in Timor-Leste, by a range of groups, and the TOMAK program recognises what they have done. We hope to build on their activities and partner with these groups – which include government and non-government organisations (NGOs) and the private sector – working together to add value and augment their work.

Geographically TOMAK is located in three municipalities in Timor-Leste: Bobonaro, Baucau, and Viqueque (Figure 1). In these municipalities our important implementing partners for Component 1 are Mercy Corps, World Vision, and Catholic Relief Services (CRS), as Figure 1 shows. We work with and through these actors, as well as through the Timor-Leste Government.

We work very closely with the Timor-Leste Ministry of Agriculture and Fisheries and also collaboratively with the Ministry of Health, helping those two ministries



**Figure 1.** The three geographic focus areas (municipalities) for TOMAK.



**Figure 2.** Malnutrition among children in Timor-Leste aged 0–59 months.  
*Original source: DFAT; adapted by TOMAK.*

link together in their work towards improving nutrition outcomes. This initial focus will then expand – probably in the second phase of the program.

### Nutritional status in Timor-Leste

As you may know, key nutritional indicators in Timor-Leste are extremely low (Figure 2), even by least developed country standards, due to constrained availability and diversity of nutritious food. This is exacerbated by generally poor knowledge, attitudes, and practices related to nutrition behaviour at community and household level. The results from the Timor-Leste Demographic and Health Survey in 2016 actually showed that these statistics are worsening in some key areas. Poor diets for children are a factor contributing to that.

The survey found that nationally only 13% of children (aged 6–23 months) are eating the minimum-acceptable diet, and this refers to both the frequency and the diversity of their diets each day. The TOMAK baseline review which we conducted recently supported these statistics in our focus municipalities. We particularly found that both breastfed and non-breastfed children in our target age bracket had very little diversity in their diets, but while non-breastfed children had very infrequent meals, breastfed children ate surprisingly often.

Similarly, we found that women of reproductive age in our target municipalities had very little variety in their diets (Figure 3), and that they most commonly eat staple foods and green leafy vegetables rather than the other food groups. Our baseline showed us that dietary diversity is critical for women, and that they need to be encouraged to eat a wider range of foods including meat, seafood organs, fruits and vegetables rich in vitamin A, pulses, other fruit and vegetables, and nuts and seeds.

**Figure 3.** Minimum dietary diversity for women.

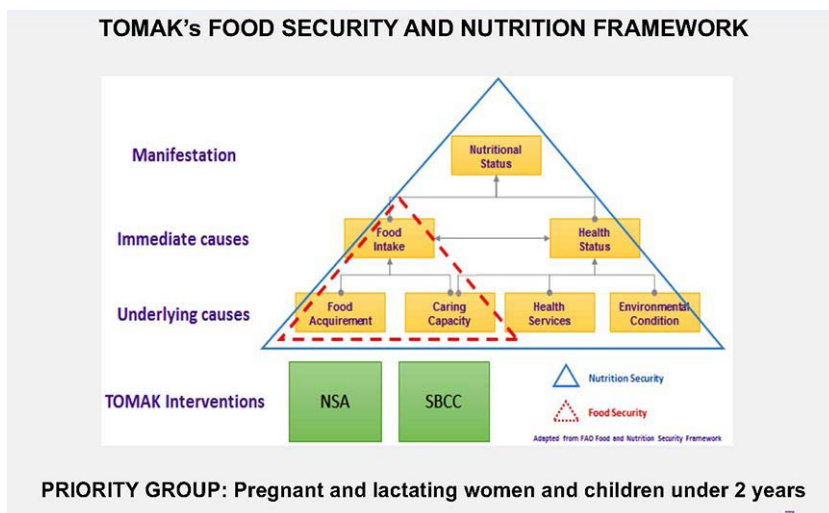
A recent TOMAK survey found that only 15% of women of reproductive age were getting the minimum dietary diversity (in TOMAK areas).



TOMAK’s food security and nutrition framework acknowledges that a range of other factors also affect nutritional status and malnutrition outcomes and those statistics. The TOMAK program is responding by focusing on agriculture, and on access to and use of nutritious food. As Figure 4 shows, we are considering nutrition-sensitive agriculture (NSA) approaches on the supply side, and ways to achieve social behaviour change (SBC) to modify demand.

Our supply-side activities, with our major partners, include support for:

- increasing and diversifying production – this can mean supporting home gardens or fish farming (which we are about to begin with CRS), poultry production and conservation agricultural approaches;



**Figure 4.** TOMAK’s food security & nutrition strategy.



- improved storage, processing and preservation: better storage techniques for grain and seed; better food processing and preservation techniques;
- better handling and utilisation of nutritious food to prevent the loss of nutrition during preparation;
- increased household purchasing and investment power, recognising that use of income is important in the purchase of nutritious food; and
- inclusive decision-making processes regarding nutrition, recognising the important role men have to play in household decision-making around what is consumed by the family.

On the demand side we have developed a social behaviour change strategy which guides our staff and our partners to make detailed identification of the intended audiences, main messages and important behaviours that TOMAK will promote – and how they will be promoted, and with whom at the community and household level.

Our focus is on a set of feasible practices, recognising what the target audiences are already doing, and what program features might lead to significantly different nutrition in households. For instance, we would like to see mothers incorporating foods rich in micronutrients into family meals at least four times a week, so we worked with our partners to identify specifically what that meant: i.e. mothers incorporating beans or soy into family meals at least two times a week, and incorporating eggs for instance, and being able to source and use fish protein also.

In other words, on the demand side we hope to work with and influence the behaviour of households so they adopt better nutritional practices, and we are working very closely with our key implementing partners to achieve that.

### **Implementation**

We have important implementation partners, with whom we have developed an implementation approach. This is how it works:

- we have strategic long-term partnerships with several leading international NGOs (INGOs) in each municipality, as well as their local partner networks. The arrangements vary: some partners work with local NGOs; some work with community groups. We aim to build on, and learn from, the work they have done, and augment it based on the lessons learned.

- we also work with the Ministry of Agriculture and Fisheries and Ministry of Health at the municipal level. They are key delivery and coordination partners. Recently we have been delighted that the Minister for Agriculture and Fisheries has advocated for the adoption of the Nutrition-Sensitive Agriculture curriculum as a national curriculum for their extension officers. We are currently piloting that across the three municipalities, and they are considering adopting it across the nation.
- we have built on work that has been done before, and partner experience, as I mentioned above, adapting existing materials and ensuring that their messages align with national strategies and priorities, and that partners are working together to use these messages and reinforce them at the local level. These groups include care groups, parents, Church groups, food processing groups, and others.
- to ensure that we learn from our partners, we have developed a learning and development platform so that we can exchange lessons about what has worked and what has not worked, and so we can compare the various implementation models across our partners at the municipal level.

Annie is a Senior Manager for Adam Smith International (ASI) Asia-Pacific, and their in-house Monitoring and Results Measurement systems specialist for the region, with experience working in Timor-Leste, Cambodia, Indonesia and Vietnam. She brings significant experience in the development of program logics, as well as practical experience in the use of the DCED Standard on 'Making Markets Work for the Poor' programs, covering value chain, business development services, and micro, small and medium enterprises. As the Monitoring Manager for the International Labour Organization (ILO) on the Business Opportunities and Support Services Project in Timor-Leste, Annie delivered an impact assessment on an agriculture invention and co-wrote a case study on this experience, reflecting on the application of the DCED Standard and realities of measuring impact of market systems projects in thin markets. She has also provided advisory inputs to the ILO on the use of the DCED Standard, has undertaken a baseline study on ASI's 5-year horticulture project in Myanmar (funded by the NZ Ministry of Foreign Affairs and Trade), and leads the design of Monitoring and Evaluation (M&E) frameworks for ASI's projects in South East Asia. Annie led the development of the M&E framework, systems and baselines for DFAT's 5-year A\$5 million agriculture market systems development and nutrition program in Timor-Leste (TOMAK), which commenced in June 2016, and she recently established the Monitoring & Results Measurement Framework and Plan for DFAT's A\$14 million market systems development program in Solomon Islands (Strongim Bisnis). Annie has a Bachelor of Management from the University of South Australia, and Masters degrees in International and Community Development, and International Relations, both from Deakin University.