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## Finding local solutions to tackle malnutrition in Timor-Leste

On October 21<sup>st</sup>, 2013, representatives from WHO and ChildFund Timor-Leste paid a visit to an innovative, nutrition project run by the Carmelite Sisters in Liquica district. Spearheaded by Sister Filomena da Costa, three programmes are being implemented in the rural villages of Ediri, Kulau and Raime. A women's group supporting positive family health practices has been established, a medical outreach clinic is being conducted and a weekly nutrition program is taking place.

The nutrition program particularly sparked WHO and ChildFund's interest because of the use of the highly nutritious, locally sourced 'moringa' supplement. Moringa or 'marungi' as it is known in the local language Tetun, is fast gaining international recognition as an important nutritional and economic resource for developing countries. Almost every part of the moringa plant has nutritional value, with research showing that moringa leaves contain more vitamin A than carrots, more calcium than milk, more vitamin C than oranges, and as much protein as an egg.



Sister Filomena gives nutritional advice to mothers and children during the weekly feeding programme in Ediri

Since August 2013, the Carmelite Sisters, together with a network of community health volunteers and the Chefe Aldeia (local community leader), have been carrying out a feeding programme in Ediri. A meal containing rice and one tablespoon of a nutritional supplement containing dried moringa leaves is served to 46 children and vulnerable mothers. Each mother is also given enough nutritional mix to sustain their household for the rest of the week. Sr. Filomena and the volunteers also provide counseling on nutrition and health checks. Children's growth measurements are recorded so that their progress can be tracked over the course of this one year pilot programme. Community Health Volunteer, Ilda Alves Correa, explains that malnutrition is a big problem among the children in Liquica. The latest data from the Demographic Health Survey 2009/2010 shows that Timor-Leste has a very high prevalence rate of malnutrition. 58% of children under five are stunted, 45% are underweight and 19% experience wasting.

Sister Filomena explained the origins of this community project to Dr. Jorge Mario Luna, WHO Representative to Timor-Leste and Mr. Daniel Anson, Health Advisor ChildFund. Sr. Joan Westblade, an Australian nun from the Mary MacKillop Mission, initially introduced the concept of using moringa as a nutritional supplement to the Carmelite Sisters in Liquica. Since 2010, the Carmelite Sisters have

undertaken a number of trainings on how to cultivate, harvest and cook moringa. Each week Sr. Filomena and two volunteers prepare the nutritional supplement for the programme. Moringa is mixed with 5 green leafy vegetables, rice, milk powder, peanuts, salt and sugar and fried. The resulting mixture is called 'Guru Guru Gizah' (savory nutritional supplement) which is added to the meal of rice. The pilot project costs approximately \$100 per week with funding from the Mary MacKillop Sisters based in Dili. If successful, the programme could be expanded to other parts of Liquica in future. The project can also be sustained by the community themselves because moringa grows in many of the community member's gardens.

Sr. Filomena advises that it is early days in terms of evaluating the impact of the programme. However, she noted that mothers in the community now understand more about their family's nutritional needs and they have learned new ways to prepare locally sourced food. Sr. Filomena has noticed dramatic improvements in a number of children who came for the first time three months ago with eating problems. Three year old Fabio was refusing to eat a lot of the food that his mother Natalina Cerao Nunes was cooking at home. Since participating in the project, Natalina has learned not to add too much sugar to her cooking. She has now reduced the amount of sugar she is putting in meals, and Fabio's appetite has greatly improved. He is now happier at home, he cries less often and he finishes his meals containing the moringa supplement.

Currently WHO is consulting with the Ministry of Health and the National Nutrition Working Group in order to prepare Food Based Dietary Guidelines for Timor-Leste based on locally sourced, available, affordable foods. WHO Representative, Dr. Jorge Mario Luna was eager to learn more about the use of moringa as a nutritional supplement and to identify whether it may be possible for WHO to assist on researching the nutritional benefits of the moringa plants found in Timor-Leste. ChildFund already implement a moringa seed distribution programme in collaboration with the RPD4 / MAF rural development programme, and were exploring the possibility of further awareness raising on moringa in the community



**Dr. Jorge Mario Luna, WHO Representative is shown moringa trees growing in Ediri village by the Chefe Aldeia Felix Martins de Jesus**



**Justina dos Santos Marques and her 2 year old daughter Sandra attend the weekly feeding programme in Ediri**

As international media begin to tout moringa as a new "superfood", this readily available food source could become a greater focus for international organizations, NGOs, community groups and the people of Timor-Leste. Given the vast range of nutritional benefits associated with the moringa plant it is easy to see why moringa is being referred to as a "miracle tree" and a new "superfood." If moringa could contribute in some small way to addressing the widespread problems of malnutrition and food security in Timor-Leste, it would certainly live up to both of these ambitious titles.