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Food Security , Improved Diets, Healthy Children

Improved Complementary Feeding Practices Newsletter

No.7 September 2014

Cambodia

Malawi

Highlights of food security and nutrition education interventions

- Agricultural input trade fairs were conducted in all nine target districts of Otdar Meanchey (OMC) and Preah Vihear (PVR) provinces in May and June 2014, with over 7,000 attendants.
- A second group of nutrition education sessions commenced in the 34 villages from phase 1 with a total of 443 caregivers.
- Sensitisation meetings were held in May 2014 with 220 local leaders in Kasungu and Mzimba districts.
- In July 2014, government staff organized 13 graduation ceremonies for 838 female caregivers and 268 other community members, including 108 men, from 77 villages in Mzimba district.

Highlights of IMCF¹ research

- The 5th and final assessment of the longitudinal study was carried out in August 2014.
- The IMCF impact survey is expected to start in mid-September 2014.
- The 5th and final assessment of the 12-month longitudinal study was conducted in July 2014.
- The IMCF impact survey commenced in August and is expected to be completed in early September 2014.

Process Review of the MALIS² project in Cambodia

Elizabeth Westaway, FAO Nutrition Consultant, visited the MALIS project in Cambodia from 21 June – 20 July 2014 to conduct a process review of the food security and nutrition education interventions to better understand the linkages and identify good practices.

A wide range of MALIS stakeholders participated in the process review at household, community, provincial and national levels, which included: caregivers and their families; Community Nutrition Promoters (CNPs); three local NGOs: a) Community-based Integrated Development Organization (CIDO), b) Khmer Buddhist Association (KBA) and c) Rural Community and Environment Development Organization (RCEDO); Cambodia HARVEST; Farmer Livelihood Development (FLD); Malteser International (MI); Medical Teams International (MTI); World Vision (WV); Justus Liebig University (JLU); MALIS project staff; Provincial Department of Agriculture (PDA), Health (PHD), and Women's Affairs (PDoWA); and Ministry of Health (MoH).

Data collection methods included: focus group discussions (FGDs); interviews; observations; and participatory exercises, which generated a rich data set that is currently being analysed. Household profiles for six caregivers who participated in phase 1 of the nutrition education intervention in OMC and PVR provinces are being developed to provide an in-depth understanding of intra-household roles and decision-making related to infant and young child feeding (IYCF).



A graduate of the nutrition education sessions being interviewed during a home visit

¹ IMCF Improving the dietary intakes and nutritional status of infants and young children through improved food security and complementary feeding.

² MALIS Improving Food Security and Market Linkages for Smallholders in Preah Vihear and Otdar Meanchey.



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Findings will be used to compile case study material on what has and has not worked in this nutrition-sensitive agriculture project, identify best practices and develop lessons learned to inform future programme and policy development. Findings from the process review, together with preliminary longitudinal study and impact survey results, will also form the basis of a joint FAO/JLU dissemination workshop in Phnom Penh, involving representatives from diverse government sectors and development partners, in March 2015. A similar exercise will be undertaken in the IFSN³ project in Malawi from 13 September – 10 October 2014 followed by a joint FAO/JLU dissemination workshop in Lilongwe in February 2015.

Cambodia Update

Agricultural fairs and improved consumption of *bobor* by children

In May and June 2014, the MALIS project conducted the first agricultural input trade fairs in Cambodia, which had over 7,000 attendants. The nine agricultural fairs brought together farmers and local suppliers of agricultural inputs to expand market linkages for remote communities in the nine target districts of OMC and PVR provinces. Participants were provided with an agreed amount of credit for the purchase of agricultural inputs and given the freedom to choose inputs that met their specific needs.



Caregivers and their children tasting different recipes of freshly prepared bobor in the Anlong Veng fair



A young child being fed bobor made from rice, fish, pumpkin and pumpkin leaves

Rice and vegetable seeds, fertilizer, hand tools, small machinery, livestock feed, veterinary medicines and kitchen equipment (e.g. energy-efficient stoves, bowls and spoons that were promoted in the nutrition education sessions), were sold by local traders. The project distributed vouchers to 3,766 participants, of whom approximately 70 percent were female, for a total cash value of 543,000 USD. At seven out of the nine agricultural fairs, nutrition booths were organized by the nutrition NGO implementing partners FLD and MI to promote the thick, multi-ingredient porridge (*bobor khap krop kroeung*).

In total, 827 children aged 6-59 months were fed with the enriched porridge, of whom approximately 60 percent (496) were female. Children, caregivers and other fair participants had the opportunity to taste *bobor*, and it was observed that most children finished their bowl, which confirmed its palatability. In addition, a National Nutrition Programme (NNP) video communicated important health and nutrition education messages on *bobor* preparation, age-appropriate complementary feeding, food safety, and basic hygiene and sanitation to hundreds of caregivers and other fair participants.

³ IFSN Improving Food Security and Nutrition Programme Outreach in Kasungu and Mzimba districts.



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Integration of Nutrition Education in MALIS Farmer Field Schools

MALIS uses Farmer Field Schools (FFS) for the improvement of farming systems. FAO pioneered FFS in South-East Asia and has employed the technique in many countries in Asia and in Africa. While Integrated Pest Management and the reduction of pesticide use was the main issue leading to the development of the FFS concept, the schools have evolved over time to deal with many issues. In MALIS, the FFS are referred to as "Save and Grow" FFS to link the FFS concept to the broad principles underlying the sustainable intensification of agricultural production. The FAO Save and Grow principles are available at <http://www.fao.org/ag/save-and-grow/>

MALIS FFS also incorporate cross-cutting issues that are core to the project strategy: disaster risk reduction, gender sensitivity, market linkages and nutrition education.

Nutrition education is integrated with other topics and timed to suit the situation in the field. Nutrition modules cover the importance of dietary diversification, benefits of home gardening and selection of nutritious crops for home gardens.

These modules are designed to be incorporated into every FFS, regardless of the main topic being rice, vegetables, chickens or cash cropping.



Participants of a Farmer Field School for rice cultivation

The FFS Facilitator chooses the appropriate occasion to integrate the nutrition modules into FFS sessions, in order to link nutrition education to other FFS activities. For example, when the feeding of chickens is discussed in the FFS, this is a good opportunity to initiate a discussion of dietary diversity and nutritious meals for the family.

To date, the project has run 118 FFS for over 2,500 participants, of whom approximately 72 percent are women. It is expected that the combination of farming systems improvement with nutrition education will enable families to consume a more nutritious diet using home-grown food resources.



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Ilean Russell and Chanthan Chea introducing the concept of Farmer Field Schools to women and other community members



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Malawi Update

Local leaders sensitisation: a key to community ownership and sustainability in Malawi

The role of local leaders in health and nutrition programmes is perceived as crucial for ownership and sustainability by communities. Hence, the IFSN project held sensitisation meetings in May 2014 with 220 local leaders from Kasungu and Mzimba Districts to brief them on the nutrition education sessions and their role in ensuring sustainability of improved complementary feeding behaviour change among caregivers of children aged 6-23 months. Topics discussed comprised: the Malawi six food groups; causes, signs and prevention of malnutrition; and the importance of having a seasonal food availability calendar.

The effects and impact of malnutrition at household, community and national levels, and the intergenerational cycle of malnutrition were also reviewed. As a result, the local leaders became aware of the long-term benefits of good nutrition and committed to supporting improved complementary feeding practices among caregivers of young children in their communities.

IFSN promotion of orange-fleshed sweet potatoes as a snack food for young children

The IFSN project encourages the local production of nutritious crops and use of nutrient dense foods to improve household food security and improve the diets of young children. Among the crops promoted for production and consumption are orange-fleshed sweet potatoes (OFSP) in Kasungu and Mzimba districts.

The IFSN project formed farmers groups, purchased OFSP vines for the groups from the Irish Aid funded project “Rooting out Hunger in Malawi with OFSP,” implemented by the International Potato Center (CIP), whose staff conducted farmer training in vine multiplication.

FAO subsequently conducted further training and assisted them to conduct OFSP vine pass-on to other beneficiaries, and encouraged farmers to sell excess vines. During 2011-2013 seasons, 1,630 (10 kg) vine bundles were distributed annually to 543 vulnerable poor beneficiaries, of whom 50 percent were caregivers. The IFSN project also promotes consumption of OFSP as a nutritious snack for young children.



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A mother preparing orange-fleshed sweet potatoes as a snack for her daughter



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6th African Nutrition Epidemiology Conference (ANEC VI)

Gabriella Chiutsi Phiri and Irmgard Jordan attended the 6th African Nutrition Epidemiology Conference (ANEC VI) held in Accra, Ghana on 21-24 July 2014. Gabriella presented and discussed some preliminary findings from her PhD study with researchers from other African countries. Her oral presentation focused on: "Caregiver's knowledge of appropriate infant and young child feeding after nutrition education in rural Malawi."

Results from pre- and post-training tests showed that caregivers increased their knowledge on age-appropriate meal frequency for their children and learned how to prepare thick, diversified complementary foods instead of watery porridges. They also recognized the importance of hygiene practices and the continuation of breastfeeding during pregnancy. However, seven months after the training, the caregivers' knowledge about breastfeeding and dietary diversity had declined, although their knowledge of hygiene practices had increased over time.

These results were corroborated in separate FGDs with caregivers and grandmothers. Caregivers reported to have gained complementary food preparation skills, and grandmothers reported to have observed enriched porridge preparation and improved hygiene practices among caregivers.

The results showed that nutrition education conducted by trained community volunteers enhanced caregivers' knowledge on IYCF practices in the short-term. However, caregivers were more likely to lose knowledge in the medium-term, and regular refresher training to reinforce knowledge and skills may be necessary to ensure that good complementary feeding practices become a standard family practice.

4th Annual Research Conference of the Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH)

The 4th Annual Research Conference of the Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH) was held in London on 3-4 June 2014. Judith Kuchenbecker and Anika Reinbott presented two posters on the impact of the FAO nutrition-sensitive agriculture projects in Malawi (IFSN) and Cambodia (MALIS), respectively.

Judith's preliminary results showed that "Child dietary diversity is positively related with a farmer field school as well as a nutrition education intervention in Malawi." Child dietary diversity is constrained by poor availability and accessibility of food, as well as knowledge gaps regarding adequate child feeding practices and family diets.



Gabriella Chiutsi Phiri presenting her study at the ANEC conference in Accra, Ghana



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In the IFSN project, it was observed that children living in households with members participating in FFS and/or nutrition education sessions consumed 4+ out of 7 food groups compared to <4 food groups consumed by children of non-participants. According to WHO, a mean food group score of 4+ indicates a minimum dietary diversity.

Results showed that the effects of FFS and nutrition education interventions were of similar magnitude. However, the causality of these effects was different for both interventions. Whereas a significant part of the effect of FFS on dietary diversity appeared to be related to an improvement in wealth, this was not the case for NE, and the combination of both interventions showed an additive, not a multiplicative effect. It was concluded that interventions targeting food security inputs at household level and nutrition education interventions improving complementary feeding are effective in increasing child dietary diversity.

Anika presented preliminary results on "Associations between Child Feeding Index and stunting in Cambodian rural households – difficulties in linking nutrition outcomes to home garden utilization." To assess nutrition outcomes, a Child Feeding Index (CFI) was developed that incorporates the following variables - breastfeeding, bottle feeding, meal frequency, dietary diversity and food frequency - which can be adjusted for three age groups: 6-8, 9-11 and 12-23 months.

Child feeding and nutritional status were assumed to improve when household food accessibility increased, e.g. by cultivating a home garden. However, results showed that household food accessibility alone did not have an impact on the nutritional status of infants and young children aged 6-23 months. Additionally, household dietary diversity did not significantly increase with improved access to land, home gardens or wealth.

It was concluded that the CFI is an appropriate measure to monitor adequacy of infant feeding as it is associated with growth.

Also, nutrition education is very important to increase the utilisation of more diverse foods in family and child diets, and to raise awareness of appropriate IYCF practices. It was recommended that future research explores the potential associations between increased utilisation of home gardens and/or seasonal food shortages and improved child feeding practices.

Upcoming events and publications featuring IMCF

Oxford, 8-9 September 2014: World Public Health Nutrition Association (WPNHA) Conference on "Building Healthy Global Food Systems: A new imperative for public health." Elizabeth Westaway presented her poster on the role of locally available foods in improving food and nutrition security in rural Cambodia.

Ulm, 17-20 September 2014: 9th Annual Meeting of the German Society of Epidemiology (DGEpi) on "Epidemiology as key for prevention and better care." Irmgard Jordan will give an oral presentation on "Improved nutritional status of children below 2 years after 6 months of participatory community nutrition education" to discuss challenges in statistical analysis of the findings from Malawi.

D ata from the Malawian IMCF baseline study on "Exclusive breastfeeding and its effect on growth of Malawian infants: results from a cross-sectional study" will be published in the Journal of Paediatrics and International Child Health in November 2014.

A manuscript presenting the results of the CFI in Cambodia has been accepted for publication in the Journal of Paediatrics and International Child Health.



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Welcome to

Belina Rodrigues joined FAO HQ in August 2014 and is providing support on complementary feeding-related project activities. She holds a BSc in Dietetics and Nutrition from the University of Lisbon, Portugal in which she undertook a final year project entitled: "Menu Labelling in Restaurants: the healthy choice," and is currently undertaking a European MSc in Food Science, Technology and Nutrition. Prior to commencing at FAO, she worked as a dietitian in several continuing care units for over two years.



Sreymom Oy joined FAO Cambodia in June 2014 as Nutrition Research Assistant and was responsible for conducting FGDs and interviews with MALIS staff, implementing partners and caregivers for the process review. In May 2014, she completed her BSc in Public Health Studies at the Asian University for Women, Bangladesh with a dissertation entitled: "Traditional Medicine Use during the Third Trimester of Pregnancy and Lower Birth weight in Rural Cambodia." In 2013, Sreymom completed a 3-month internship at the NNP, during which she assisted in facilitating a MALIS nutrition education training of trainers in OMC province.



Rathany Than has worked as a Research Assistant with the IMCF project Cambodia Team since June 2013. Her main role is to assist with the planning of data collection, translations and communication with local authorities and study participants. In 2009, she gained a diploma in English from Pannassastra University. Previously she worked as a social worker with different local NGOs in OMC and PVR, and as an assistant of a medical volunteer, working closely with Health Centres and their outreach activities.



Phirun Che has worked as a Research Assistant with the IMCF project Cambodia team since August 2013. She conducts pre- and post-training tests with caregivers and observes nutrition education sessions at different levels in the field. In 2007, Phirun graduated from Don Bosco School in Phnom Penh with a Diploma in Administration. Before joining the IMCF project, she worked at the Don Bosco Vocational Training Center for Girls in Phnom Penh and at the Don Bosco Community Education Support Programme in Battambang.



Jacqueline Chalemere Mkwani is an MSc student of Human Nutrition and Food at Lilongwe University of Agriculture and Natural Resources (LUANAR) - Bunda Campus, Malawi. She is conducting her MSc thesis in close collaboration with IMCF, analysing the nutrient content of enriched porridges to evaluate the "Nutritional Quality of Complementary foods based on Trials of Improved Practices (TIPS) recipes in Malawi". Previously, Jacqueline worked with the Government of Malawi as a Food and Nutrition Officer in the Ministry of Agriculture.



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2nd International Conference on Nutrition (ICN2)

A Joint FAO/WHO press conference was recently held to launch the ICN2. FAO's Director-General José Graziano da Silva observed that while great strides had been made since the first ICN held in 1992, progress in reducing hunger and improving nutrition has been unacceptably slow. Malnutrition places an intolerable burden on individuals, communities and countries, and urgent action is needed. As global problems require global solutions, FAO and WHO are jointly organizing this inter-governmental conference to improve nutrition in Rome on 19-21 November 2014. The conference will seek:

- political commitment and mobilisation of resources for action on improved nutrition;
- incorporation of nutrition-enhancing food systems into national policies;
- improved coordination between food, agriculture, health and other sectors.

ICN2 expected outcome documents are a political declaration – the Rome Declaration on Nutrition – and an accompanying Framework for Action to guide its implementation. The ICN2 will also contribute to the post-2015 UN development agenda and the Zero Hunger Challenge.

Additional information can be found at: www.fao.org/ICN2

ICN2
Second International
Conference on Nutrition





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