Partnership for Improved Nutrition in Lao PDR, Pillar 3
Accelerating Healthy Agriculture and Nutrition (AHAN)

Evaluation completed by Elixirs Sole Co., Ltd.
Overview

**Acknowledgement**

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In particular, the willingness of the villagers in the 62 target villages to meet with the endline evaluation team and participate in the household surveys and focus group discussions share their experiences was very important for this study. Elixirs would also like to acknowledge the financial support of the European Union. Without the commitment of the dedicated AHAN project field team, and the World Vision Lao and Australia staff who provided editorial review and comments, this work would not have been possible.

**Affirmation**

Except as acknowledged by the references in this paper to other authors and publications, the endline evaluation described herein consists of original work, undertaken as a collaboration between World Vision International Lao PDR and Elixirs. It is undertaken to guide future activities, describe and advance learning, and generate evidence of World Vision’s development effectiveness as part of the requirements of World Vision’s Learning، Evaluation، Accountability and Planning System.

Primary quantitative and qualitative data collected throughout the evaluation process remain the property of the communities and families described in this document، which World Vision retains as steward on behalf of those communities.

**Disclaimer**

This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of the Accelerating Healthy Agriculture and Nutrition (AHAN) Project and can in no way be taken to reflect the views of the European Union.

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**EXECUTIVE SUMMARY**

**Project description**

In the Lao People’s Democratic Republic، approximately one in three children are stunted throughout the country (33%)، while one in five are underweight (21%)، and one in ten are wasted (10%)، according to the 2017 Lao Social Indicator Survey II. The direct causes of undernutrition is the lack of adequate nutrient intake and the effects of food، and water-borne and infectious diseases، with underlying causes including lack of access to adequate food، in terms of both quality and quantity، poor access to health care، and poor environmental hygiene. Due to the intersecting causes of undernutrition، the National Nutrition Strategy and Plan of Action identified 22 priority actions within overall management، health، agriculture and education. The newly confirmed National Plan of Action for Nutrition (2021 to 2025) also identified associated sector action plans involving gender and industry and commerce which have an impact on women and children’s nutrition.

The project، led by World Vision، has been implemented by a consortium of partners including Agronomes et Vétérinaires Sans Frontières (AVSF)، Green Community Development Association (GCDA) and the Burnet Institute (BI). Implementation targets 12 districts across 3 southern provinces، supporting 70 villages per district:

- Savannakhet province: Phine، Sepone، Thapanthong، Phalanxay، Atsaphone و Xonnabouly districts
- Saravane province: Saravane، Ta-Oi، Toomlarn و Lao Ngarm districts
- Attapeu province: Xaysetha و Samakhkhiyai districts

**Specific Objectives**

The Accelerating Healthy Agriculture and Nutrition Project (AHAN) has a five-year European Union (EU) funding for AHAN project (1st October 2017 to 30th September 2022) under the EU program “Partnership for Improved Nutrition in Lao PDR – Pillar 3”. The project included matching component from the Australian government through the Australian NGO Cooperation Program (ANCP). The AHAN project aimed to enable households to effectively reduce the prevalence of stunting and underweight in children under five through these outcomes:

- Improve access to and availability of sufficient and/or diverse foods year-round
- Improve dietary and care practices among women of reproductive age (15-49 years) and children under 3 years
- Reduce incidence of selected viruses، Sanitation and Hygiene (WASH) related diseases/illnesses linked to undernutrition
- Improve gender equitable relations at the household level، particularly in decision-making and distribution of workload
- Strengthen multi-sector coordination and support for nutrition

The purpose of the Endline Evaluation is to assess the level of impact in line with project design and implementation from 2019-2022، by assessing the level of achievements made against the goal، outcome، and output level objectives، and to examine the key achievements، successes across the phases (changes in baseline vs endline results، implementation، monitoring and transition/exit processes) and lessons. On this basis، the evaluation has suggested possible remedies and recommendations to the Lao Government through the Ministry of Health، Ministry of Agriculture and Forestry and the Lao Women’s Union for consideration to ensure ownership and sustainability of the gains the project has made.

The evaluation used a mix of qualitative and quantitative methods with key informant interviews of key stakeholders and focus group discussions with different groups of project beneficiaries to examine the factors for successes، and the challenges faced by the project. Household data was generated using a quantitative survey technique، including anthropometric measurements of children under two years and under five years، to allow for comparative analysis with baseline values. A total of 1،240 households participated in the quantitative survey، in villages randomly selected from the twelve districts.
KEY FINDINGS & RECOMMENDATIONS

Goal: To improve food security and create supportive condition for enhanced household nutrition

The goal of the project was "To create supportive conditions for enhanced household nutrition," which included reduced stunting and underweight rates in children under age 5 years (CU5) and increased food security.

The evaluation found that the stunting rates for the three provinces was reduced from the total baseline rate of 46.8% to 29.3%. However, the declining rates for stunting varied between provinces and districts with the stunting rate in Attapeu reducing from 42.9% at baseline to 10.2% at endline, but in Savannakhet stunting declined from 45.2% at baseline to 33.7% by endline. The districts with the continued highest stunting rate were: Sepone (59.8% stunting rate at baseline and 51.5% stunting rate at endline); Phine (37.3% at baseline and 43.1% stunting rate at endline); and Phalanxay (59.2% at baseline compared with 38% at endline). These three districts are in the easternmost section of Savannakhet Province and are in areas which are very difficult to access, prone to flooding which destroy food crops and make external assistance difficult to provide. These districts are also among the poorest in the country. Saravane had decreased rates of stunting of 34.1% compared to baseline (51.4%). The highest reduction in Attapeu may be due to higher income, and many of the villages are near urban areas. As noted in the methodology section, these rates for stunting and underweight are accurate, as the team used a program in their laptops to calculate the rates, and if children’s results were out of range, they were rechecked.

Underweight rates have reduced from 34% at the baseline to 26.8% at the endline. The end of project target for underweight was 41% and 29.7% for underweight, so the overall project results have achieved this target. However, the rate for underweight also varied between provinces and districts. It was the lowest rate in Attapeu at 31.2% at the baseline, declining down to 6.6% at the endline, followed by Saravane, where underweight was 37.7% at the baseline and reducing to 28.6% by endline. In contrast, in Savannakhet, underweight increased slightly from 32.7% at baseline to 35.7% at endline. This was also reflected in the following districts in Savannakhet which continued to have the highest underweight rate: Sepone (40.2% at the baseline and 45.5% at the endline); Phalanxay (42.7% at the baseline and 39% at the endline); Phine (28.1% at the baseline and 35.3% at the endline); and Xonnabuly (29.9% at the baseline and 34.7% at the endline). Only Thapangthong maintained its relatively low rate of underweight (26.2% at the baseline and 26% at the endline).

Food Security was measured using the USAID (2007) Household Food and Insecurity Access Scale (HFIAS), which was calculated using the formula for the questions in the AHAN Monitoring and Evaluation (M&E) framework guidance. In terms of the number of months where families reported reduced access to food, how often reduced access occurred and the measures that families took to ensure that family members have adequate food. Food Security has increased during the project, from 11.7% at baseline to 70.2% at endline.
OVERALL CONCLUSIONS

Improvements in mother and children’s nutrition status depend on interrelated factors, which are consistent with the National Nutrition Strategy (2016 to 2025) and the National Plan of Action for Nutrition (2021 to 2025) which emphasizes the multi-sector approach to nutrition improvement. With 22 priority actions, the NNSPA recognizes that the growth and development of a child is based in the 1,000 Day Approach, and is not only the responsibility of the health center, but many sectors working together. While the original 22 priority actions involved overall management, health, agriculture and education, the NPAN acknowledges that other sectors, such as gender and industry and commerce, need inclusion. The AHAN project goals and strategic outcomes are in line with the NNSPA strategy and plan of action.

The AHAN project has been involved in improving the understanding at every level, starting with involvement at the national level for the revision of the NNSPA and the NPAN, involvement with SUN/CSA activities by membership and joining meetings at the national level. At the province level, WVI-L and partners have joined PNC meetings and province annual meetings and Learning Workshops. At the district level, WVI-L has helped to fund and maintain the district nutrition committees so that the implementation of convergence is closer to the field staff and villagers.

The effect of food security in this goal contributes to better nutrition outcomes, as those provinces and districts with highest levels of food security have the lowest levels of stunting and underweight. This evaluation has demonstrated that the project activities have improved nutrition outcomes through these actions:

- Multi-sector convergence approach does improve nutrition, as there is increased food security, dietary diversity and dietary adequacy which reflects the combined actions of agriculture, education through group activities;
- Follow-up of project staff and partners contributed to effectiveness and quality of activities. It is not enough to do a training but the follow-up is necessary to see how villages actually implemented change. This is particularly true with toilet construction in order to improve the planning for families to build toilets, and for gender as some daily activities in line with the C-Change plan might need encouragement to continue;
- The AHAN project has contributed effectively with the coordination mechanisms with sectors involved in nutrition at all levels (national, province, district) and the project objectives and activities are in line with national strategies and plans;

OVERALL RECOMMENDATIONS

1. GEOGRAPHICAL CONTEXT

Project goal and objectives to improve nutrition and food security (access) were largely achieved. However, there was wide variation across the provinces and districts, with a few target districts and villages showing the least reduction in stunting and food security outcomes. These districts would include the three easternmost districts of Sepon, Phin and Phalavan in Savannakhet province and Toumlane, and Lao Ngam in Saravane. If there will be another project with the same coverage as AHAN, it would be best to concentrate on these poor performing districts with a multi-sector approach. As the villages in these districts are more remote, it is important for WVI staff and partners to spend more time in the villages to provide mentoring support in developing village capacity, as well as encouraging community dialogue.

This would be accomplished by:
- Increase village ownership and capacity for all the outcomes – mentoring and training of community volunteers and group leaders of farmers groups, S4N groups etc. to have improved ability to lead the groups;
- Work with CSOs or other INGOs who have staff in those districts. In some cases, there are other organizations working in the same districts and villages who have their own lessons learnt in working with villages in those districts;
- The HH survey only asked about the outcomes; however, there is no overall understanding of the process of change. The FGDs were small and did not include many people so they cannot provide the information for a process evaluation which would look at the detailed steps for achievements.

Be more conservative in geographic scope of project activities, as it can be difficult for staff to both meet targets and ensure the quality of project implementations when they are overstretched across activities and a large geographic area. However, extension of project activities to villages in health center catchment areas which had not be reached by the project could be achievable, as some health centers are also implementing some interventions they have learnt from the project in the formerly non-target villages.

2. MODEL FAMILIES AND COORDINATION

Some activities would benefit from village wide intervention as a ‘critical mass’ of villagers who practice good nutrition and WASH practices can ensure good nutrition for all as well as improved village hygiene. Since well-performing villages also have a core set of families with good practices, these model families can provide models for expansion to previous non-target families.

Many questions raised after the review of the HH survey, could not be raised in the FGDs. Many of these questions also are seasonal – at times when food is more available, when division of labor is more readily shared, when parents can play with children, etc. and should be reviewed in group discussions. In addition, by doing this throughout the year, a work and agriculture calendar can be devised to understand men and women’s roles and food availability differ based on seasons. The nutrition projects organized by WVI-L in the future (whether or not AHAN is continued in present form) should reach out to other INGOs and organizations in the provinces.

3. GENDER EQUALITY, DISABILITY AND SOCIAL INCLUSION

Although gender and disability are central cross-cutting issues and involved in many project activities, the Gender Equality and Disability Social Inclusion (GEDSI) should be integrated into the project design documents for future. Continue to explore how to develop access to home gardening, as people with mobility impairments may have problems bending over, and people who have visual problems or blind should have tactile clues for weeding.

The indicators for gender should be based on the GEDSI plan. The current indicators are more useful if part of group activities. Some of the other indicators related to the GEDSI plan could include:
- Number of women with disabilities selected as part of contact (PoC) in villages for ensuring that disability inclusion actually occurs. A checklist of duties should be developed for the PoC and mentoring should check with them on monthly report such as people visited, people informed and invited to join activities, follow-up on health visits, etc.
- Needs assessments for inclusion, assistive devices for people with disabilities
- Involvement of people with disabilities in S4N groups, as they are most likely to be poor, lack literacy and numeracy skills, and feel they can not contribute funds towards the monthly deposits.
- Number of families with people with disabilities with shared financial planning from GIFT.
Specific Objective 1

Agriculture & Livelihood

The evaluation revealed that household food access and diversity of foods produced by families increased between baseline and endline: access to year-round sufficient food (increased by 61.3%), diversified crop production (124.6%), and diversified livestock production (by 10.7%). The findings suggest that the following project interventions under Outcome 1 in particular may have contributed to this increase: in collaboration with Agronomes et Vétérinaires Sans Frontières (AVSF) and its field teams in the provinces, AVSF, government partners and WVI-L staff have trained farmers in technical skills for increased crop and small livestock production. While, the Green Community Development Association (GCDA), another partner of AHAN, worked on the demand side by developing 22 local markets.

Marketing at local markets, close to target villages, is still an on-going process. However, since the project emphasizes improved family food consumption, the amounts of food produced by families and sold in the local market have been limited. Families often sell foods if they have surplus from their gardens or from foods collected from the forest, in the local markets that GCDA has worked with farmers groups to develop. GCDA has worked with communities and farmers groups to set up local markets guided by management committees to ensure that they comply with regulations and can remain viable. For these local markets, seasonality of products and productivity of farmers are still issues.

Income has increased over the past 3 years. However, this income was most likely due to sales of cash crops, such as cassava and coffee, which are not supported by the project. For example, 89% of respondents reported that their income was from selling coffee and 64% from selling cassava. In one FGD, one man said he had borrowed the maximum allowed by the S4N group (2 million kip) to expand his cassava plot; other people in FGDs said they had borrowed smaller amounts for their family food consumption for seeds, equipment and fuel for two-wheel tractors.
Improving animal health through better veterinary practices such as vaccinations, animal feeding and care of hygiene of animals has effectively informed villagers that sticky rice alone is not a complete food and that a diverse diet is required for health. AVSF and government partners have identified people interested in becoming village veterinary workers (VVW) and provided training and basic equipment and medications to the VVW. The VVWs have organized vaccinations days, and protect families' investments in livestock raising.

LESSON LEARNT #2: Improving animal health through better veterinary practices can provide nutrient-dense foods and protect families’ investments in livestock raising.

Animal health through better veterinary practices such as vaccinations, animal feeding and care of hygiene of animals has led to better health practices ensuring better animal survival, better weight gain and protecting villagers’ investment in animal care so when they sell the animal, they will realize higher profit. The VVWs have been key in containing a viral disease in cows, called lumpy skin disease, which requires isolating animals. The VVWs have trained other villagers in animal feeding and hygiene care of animals, which has led to better health practices for better animal survival, better weight gain and protecting villagers’ investment in animal care so when they sell the animal, they will realize higher profit. The VVWs have been key in containing a viral disease in cows, called lumpy skin disease, which requires isolating animals.

CONCLUSIONS

Improving home gardens has increased dietary diversity. Providing a wider range of vegetables and nutrition information has effectively informed villagers that sticky rice alone is not a complete food and that a diverse diet is required for health. Animal health through better veterinary practices such as vaccinations, animal feeding and care of hygiene of animals has led to better health practices ensuring better animal survival, better weight gain and protecting villagers’ investment in animal care so when they sell the animal, they will realize higher profit. However, raiding small animals such as crickets and frogs needs piloting in villages to understand how villagers can raise these animals before introducing at a larger scale in order to ensure productivity and reduced mortality of the crickets and frogs.

EFFECTIVENESS

Reduction in post-harvest rice loss has been addressed through storage of rice to prevent loss due to rodents, which has resulted in a slight decline of 5.4%. But there are some remaining challenges that are contributing to post-harvest rice loss, associated with threshing, bagging, and transportation.

Savings for Nutrition (S4N) groups have been established in all villages. The groups have provided resources for improving agriculture and Gender Inclusive Financial Training (GIFT) within the groups has contributed to some villages to increase decision making of women.

LESSONS LEARNT & RECOMMENDATIONS

LESSON LEARNT #1: Providing food security is essential for families, as access to food and access to nutritious foods are essential for women and children to have dietary diversity and have sufficient food to eat.

RECOMMENDATIONS

Continue to support home gardens

Since families have been planting diversified vegetables, this activity should continue and have increased diversity of vegetables available. The current no cost extension (NCE) includes addition of plants such as moringa, but research should continue on other nutrient dense vegetables such as amaranth, tree spinach (ဗောင်ဖြူ), as well as exploring local fruits such as နောက်ချာ (star gooseberry), star fruit, papaya, cassava for their nutritional content. Farmers groups should have continued training on the nutritional value of foods they are growing.

Consider new food products from local materials such as the nutrient fish powder promoted by the USAID/ Nourish project in Cambodia; this product is high in protein and calcium which are two nutrients important for growth of young children. Home gardens need continued follow-up to the end of the project period as Round 2 (training and distribution of heirloom seeds for the second group of five villages per district) was done in 2022. Since this round included people with disabilities, follow-up should also continue to see what innovations that farmers with disabilities have been able to devise by themselves and consider trialing these innovations with possible scaling up. The emphasis on vegetable raising should be to continue promote consumption of diverse vegetables. At this point, income generation from sales of crops cannot be promoted on a large scale, as crop crops often compete with the labor of home gardens and raising crops for consumption. Because productivity is still low and transportation from more remote locations is difficult, the current actions of increasing food consumption and selling vegetables should be done after family’s needs are satisfied. Sales should continue to be local - within or near the villages. Because of lack of storage options and refrigeration, people who raise cows or water buffalo sell their animals for large ceremonies such as weddings and healing ceremonies or they sell to vendors and later, buy small and manageable amounts of meat from markets. Consider how to discuss with villagers on scheduling a day for slaughtering a cow and selling the meat to other villagers.

LESSON LEARNT #2: Improving animal health through better veterinary practices can provide nutrient-dense foods and protect families’ investments in livestock raising.

AVSF and government partners have identified people interested in becoming village veterinary workers (VVW) and provided training and basic equipment and medications to the VVW. The VVWs have organized vaccinations days, trained other villagers in animal feeding and hygiene care of animals, which has led to better health practices for better animal survival, better weight gain and protecting villagers’ investment in animal care so when they sell the animal, they will realize higher profit. The VVWs have been key in containing a viral disease in cows, called lumpy skin disease, which requires isolating animals.

RECOMMENDATIONS

Continue the system of VVW and provide training in management such as managing stocks of vaccines or other medications, identify a profit margin so they can cover their costs when they go to buy medications, provide education materials to The VVW can promote animal health especially when there are outbreaks of animal diseases.

Consider choosing VVWs with interest to attain short term training, or long term training to complete a mid-level agriculture degree. The candidates should be chosen from ethnic minority groups with completion of a secondary school background for mid-level degree programming. If there are candidates with special talent, WVI-L should consider encouraging non-formal education to achieve the secondary school requirement.
LESSONS LEARNT & RECOMMENDATIONS

LESSON LEARNT #3: Village level workers can guide farmers on animal health and provide initial assessment for diseases. They can also assist the DAFO to contain outbreaks of animal diseases by informing DAFO / PAFO and provide education to farmers.

Traditionally, farmers do not vaccinate animals, especially chickens, as farmers believe that vaccinating chickens is not as important as vaccinating larger animals such as cows and pigs. Continue to develop and follow-up on village veterinary workers (VVWs), who do have improved skills and the confidence of villagers. The village veterinary workers do organize animal vaccination days and consult on animal diseases. They were also valuable in village-level outreach to control the spread of lumpy skin disease.

RECOMMENDATION

AVSF staff should continue to provide mentoring and follow-up to the VVWs until the end of the project to strengthen their abilities as animal health care providers. VVWs should receive more training on management skills which would allow them to develop as successful entrepreneurs as well as providing an essential community service. Monitoring should include a checklist on how the VVWs are collecting, recording and managing funds.

LESSON LEARNT #4: Providing small animals such as crickets and frogs needs piloting in villages

A significant number of crickets and frogs had died. Villagers in FGDs said that although they had consulted with the agriculture department, the trainers also did not know what to do. For crickets, the environmental conditions might have been incorrect. For frogs, it seems they were not separated so that big frogs ate the smaller frogs; in addition, frogs procured in Thailand may have died due to the conditions of travel.

RECOMMENDATION

Pilot small animal raising and learn from other projects. Linking with the lessons learnt from other projects can also help the issues with raising these animals through exchange visits. Study tours to locations where INGOs or CSOs have been successful with frog or cricket raising would help to show villagers that raising these animals can be successful. Including recipes for cooking frogs and crickets.

LESSON LEARNT #5: Preservation of forest lands is important for regenerating flora and fauna but needs to be managed to prevent encroachment

All villages have land use plans which include areas which should be protected from erosion and areas which should be conserved for environmental protection and to conserve plant and animal life they can regenerate. Although the plans are well-known within villages, these plans are generally not shared with districts so that people outside the village would know about the land use.

RECOMMENDATION

Land-use planning and management should continue with villages posting their maps and monitoring the different areas of land use to make sure that both villagers and outsiders are respecting the boundaries. Enforcing regulations for those who encroached on the boundaries should be done with support at all levels of government as this is a sensitive issue.

LESSON LEARNT #6: Farmers groups have an important function of supporting new agriculture practices by learning from each other.

Key farmers, with additional skills, can support problem-solving and integration of farming skills in their farming. The groups also can increase efficiency by sharing costs, providing communal equipment and resources and negotiate prices with vendors. While most of the farmers groups have registered, they have not worked collectively and sell their products individually, as the crops are not harvested at the same time. During COVID-19 lockdown periods, farmers sold or bartered crops individually within the villages as well. There is always the risk that as time goes on, that farmers will lose motivation in continuing the activities of the group if they feel that time in meetings or FG activities are not providing enough benefit.

RECOMMENDATION

In the final few months of the project, AHAN staff should:

- Organize group discussions with all the farmers in the groups to establish the advantages and disadvantages for working collectively.

- The project should work with the DAFO so that follow-up is done on a regular basis to motivate the farmers to continue activities

- Well-performing farmers groups should be prepared to host study tours (such as printed materials, lesson plans, who should provide the information, etc) from other groups, so they share their skills or learn from other more successful groups

In Thailand may have died due to the conditions of travel.
LESSON LEARNT & RECOMMENDATIONS

LESSON LEARNT #7: The emphasis of the project should remain on family food consumption to improve nutrition; providing foods for sale should be done once family needs are met. Markets can also provide a venue for health education materials and provide examples for reducing the use of breast milk substitutes and junk food.

RECOMMENDATION

Market management committees should continue their work on overseeing the collection of fees and regular market inspections. The management committees at the 22 local markets established with collaboration with GCDA should include regular assessments of foods sold in the markets to ensure that ‘junk food’ and breast milk substitutes are not sold in the markets and that markets have proper hygiene. The market management committees should also invite community feedback and post education materials on nutrition.

LESSON LEARNT #8: Savings funds helps people to develop confidence and provides a method for members to borrow money for agriculture activities which improves access to better nutrition

RECOMMENDATIONS

Follow-up of management ability of S4N members is important; project staff and partners should receive regular reports on activity of the funds – amount in the cash box, loans taken, loans returned, and reasons for taking loans and factors for repayment or non-repayment of loans. The members of the group should regularly share the plans they have made with GiFT plans and how they have worked towards these goals. Since the LWU is involved in this activity, the project should mentor them for this follow-up and have tools (such as checklist, sample meeting agendas and template for reporting) to continue to promote both the gender and money management.

WVI-L should do a full audit on the activities of the groups including the current amount in cash boxes, regulations for deposit and loans, amount of loans taken and loans repaid and review of records such as members’ planning and records of meetings. GiFT should be evaluated separately to determine which members in which village S4N groups have their planning and how they have contributed their savings to achieve these plans as well as challenges in savings and use of funds. As some S4N groups want to continue or establish new groups in villages.
The ability of diets to meet minimum daily diversity has increased from 39.2% at the baseline to 78.2% at the endline among mothers and from 22.7% at baseline to 68.5% at the endline among children aged 6-23 months. The proportion of pregnant women receiving iron/folic acid supplements increased from 70.7% to 89.4% over this time period. Ante-natal care visits increased during the project period as well, so that women can receive the iron folate pills. These results are in spite of the impacts from COVID-19 lockdown periods which presented challenges for families going to health centers as well as seeking care in outreach clinics which were suspended during lockdown periods for well-child checks and immunizations. For instance, while the percentage of children who received a deworming dose increased from 60.8% at baseline to 72.4% at endline. (However, the percentage of children receiving deworming medicine still did not reach the target of 83.3%, which does reflect the difficulty of accessing some services).

The project has been able to leverage the capacity of local staff to provide cultural and health outreach to villages. Health services require establishing relationships with villagers to build trust. In some of the health centers, staff were born and raised in these villages and are fluent in the language, culture and social connections. Improvement of quality of care includes the training of staff and the improvement of health systems management so that staff have the equipment and materials they need to improve care. Increased utilization of health centers also involves maintaining clean and safe facilities to improve the confidence of patients that they can receive appropriate care. AHAN provided improvements to hygiene at health centers through waste disposal training and containers for separating waste, incinerators and improved water systems and handwashing areas.

Providing supportive supervision and counselling for health staff improves staff confidence and reinforces their knowledge and practice for improved quality of care in a caring manner. By observation, discussion of good practices and what the staff person needs to do for improvement, the trainers and trainees can make a plan of action.

Training and developing the skills of community volunteers who are from the same ethnic group, know the language and culture will build up a core of people who can support each other and mothers and increases community ownership. The project has established key farmers for support of agriculture and the value of nutrient dense foods, and continues to develop community volunteers for mothers’ groups, gender and C-Change.

The project provided support to improve the cascade training system, where trainers at the province level provide training to district staff who then provide training to health centers. Trainers were trained at the province and district levels, and then trained health staff in infant and young child feeding (IYCF); integrated management of Newborn and Childhood Illness (IMNCI) and community management of acute malnutrition (CMAM). The project also worked with the trainers to provide supportive supervision where the trainer follows up with trainees and they work together on identifying what the trainee has done well and what needs improvement and develop an improvement plan. As a result of the training and the supervision visits, health center staff in KIIs stated that they felt more confident in diagnosing and treating newborns and childhood illnesses. Refresher training in the use of the Mother and Child Follow-up Book (known as the “Pink Book”) and antenatal care (ANC). In FGDS, health staff said they are able to better diagnose newborn and childhood illnesses and make the appropriate referral to district hospital services for more serious conditions (such as high fever, respiratory distress and dehydration). The health center staff have also worked through a team approach to support outreach services where they organize mothers’ groups and supervise community volunteers in running these activities.

LESSON LEARNT #9: Providing a wider range of vegetables, animal raising and nutrition information has effectively informed villagers that sticky rice alone is not a complete food and that a diverse diet is required for health.

RECOMMENDATIONS

With the diversification of vegetables and animal raising, families should learn about the nutritional value of the foods they are growing and cooking. Cooking classes should include more diverse recipes and experiments. Some of the local foods and those promoted by the project such as crickets and frogs should be included in the recipes used in cooking classes. To promote participation, women joining the cooking class can also demonstrate their own favorite recipes. Future project activities should expand recipes, as women in FGDS said that currently, they make only rice porridge and fried rice in the cooking groups. They would like other recipes as well.

**CONCLUSIONS**

The proportion of pregnant women receiving iron/folic acid supplements increased from 70.7% to 89.4% over this time period. Ante-natal care visits increased during the project period as well, so that women can receive the iron folate pills. These results are in spite of the impacts from COVID-19 lockdown periods which presented challenges for families going to health centers as well as seeking care in outreach clinics which were suspended during lockdown periods for well-child checks and immunizations. For instance, while the percentage of children who received a deworming dose increased from 60.8% at baseline to 72.4% at endline. (However, the percentage of children receiving deworming medicine still did not reach the target of 83.3%, which does reflect the difficulty of accessing some services).
Since mothers are concerned about including nutrient-rich fish into the diet of young children, consider making nutrient fish powder, which has been developed through the USAID Nourish project in Cambodia which is high in protein, calcium, fat soluble vitamins and minerals. The fish powder is both nutritious and acceptable to Cambodia diet.

**LESSON LEARNED #10:** Strengthening village management of activities can ensure sustainability and village ownership

**RECOMMENDATIONS**

Continue development of community volunteers to manage group activities, and follow-up on their ability to manage the quality of actions. Follow-up to the end of the project should be on making sure that meetings happen, they are documented and that the community volunteers are the ones leading the group. After that AHAN staff and partners, who act as observers only, can give feedback based on the principles of supportive supervision. Community village volunteers should also divide tasks for home visiting women in the 1000 days period. The community village volunteers also should emphasize the content in the pink book on saving breast milk and other methods for enabling exclusive breast feeding.

Regular food diaries should be discussed in mother’s and other groups in order to track diet diversity and healthy foods. For women with lower literacy levels, the food diaries can be included in a picture-based format such as a worksheet which can be included into a note book for mothers and they can glue the pictures into what the family had eaten the previous day (rice glue can be used). It’s important that if parents are working outside the home, that they have time to cook nutritious meals, rather than letting their children buy packaged snacks. Staff should be aware that the term for food taboo can have several different meanings including the positive advice given by health center staff not to drink alcohol or smoke tobacco when a woman is pregnant.

Women should also learn about the cues for malnutrition in their children, such as poor appetite, children not playing or being naughty, or noticing that child is skinnier or shorter than other children of the same age group. Breast feeding mothers should understand the baby’s cues as when a baby cries, rather than feeding solid or liquid foods checking whether there may be another reason for the baby’s cries; discomfort tiredness wanting caregiver.

**LESSON LEARNED #11:** Follow-up of health centers is essential to ensure that they are incorporating the skills they have learnt in training into their patient assessments and diagnosis

**RECOMMENDATIONS**

Trainers should continue to use supportive supervision when working with health center staff, as this creates a learning environment where staff can share issues that develop and solve problems together.

Most health centers have desktop computers and some have laptops so that they can also use the ENA program for entering and assessing stunting, underweight and wasting. For children with acute malnutrition (wasting z-scores of -2 or less), staff should also interview the families on the cause of the malnutrition – such as lack of availability of food, poor appetite (some children prefer packaged snack foods and then they do not feel hungry for more nutritious foods), or illness (which can cause wasting), or poor appetite due to illness or malnutrition.
The development of effective water, sanitation and hygiene (WASH) interventions requires the understanding of villagers on the effects of poor hygiene and sanitation on their health and impact linked to malnutrition, illness and growth-faltering in young children. The project built awareness through activities of Community-Led Total Sanitation (CLTS) triggering activities. As a result, the proportion of households that have basic handwashing facilities rose from 38% at baseline to 94.7% at endline. Similarly, the percentage of the population practicing open defecation declined from 73.5% to 33.4%. While household access to basic sanitation facilities rose to 61.9% at endline from 23.5% at baseline. Furthermore, 44 villages have successfully built toilets and have been declared open defecation free (ODF).

Village Water and Sanitation Management Committees (VWSMC) provide the leadership and governance to oversee this process, through triggering (initial CLTS phase), and post-triggering (monitoring and promotion of toilet construction, use and village hygiene). A well-functioning committee is composed of six or seven people with well-defined roles of leadership, water system monitoring and management maintenance and mobilizing villagers for participation in paying water user fees and maintaining water systems is ensured. At the time of the evaluation, toilet construction and strengthening of VWSMC was on-going.

The no-cost extension (NCE) plan included the consolidation of WASH activities and strengthening the VWSMCs to provide WASH activities, including promotion of COVID-19 prevention activities. The NCE also has finished the repair of drilled community borehole wells and hand pumps, as well as finishing the construction of incinerators and providing training and materials to health centers.

### EFFECTIVENESS

#### OVERVIEW

<table>
<thead>
<tr>
<th>Percentage of children under 5 within diarrhea in the past two weeks</th>
<th>18.1</th>
<th>15.2</th>
<th>18.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Project Target</td>
<td>End-Line</td>
<td></td>
</tr>
<tr>
<td>Percentage of households that have handwashing facilities available</td>
<td>38.4</td>
<td>70.0</td>
<td>94.7</td>
</tr>
<tr>
<td>Base</td>
<td>Project Target</td>
<td>End-Line</td>
<td></td>
</tr>
<tr>
<td>Percentage of households with access to basic water sources</td>
<td>54.8</td>
<td>79.3</td>
<td>79.0</td>
</tr>
<tr>
<td>Base</td>
<td>Project Target</td>
<td>End-Line</td>
<td></td>
</tr>
<tr>
<td>Percentage of households with access to basic sanitation facilities</td>
<td>23.5</td>
<td>51.7</td>
<td>61.9</td>
</tr>
<tr>
<td>Base</td>
<td>Project Target</td>
<td>End-Line</td>
<td></td>
</tr>
<tr>
<td>Proportion of population practicing open defecation</td>
<td>73.5</td>
<td>53.3</td>
<td>33.4</td>
</tr>
<tr>
<td>Base</td>
<td>Project Target</td>
<td>End-Line</td>
<td></td>
</tr>
</tbody>
</table>

### CONCLUSIONS

The project has strengthened the community support of water, sanitation and hygiene (WASH) through well-functioning Village Water and Sanitation Management Committees (VWSMC). This is essential as the members of the groups are community people coming from the same background, knowing the culture, language and challenges of behaviour change. Villages with stronger VWSMC with defined roles, regular meetings, collection of water user fees and regular planning for community maintenance activities and hygiene would all contribute to increased access to hygiene.

The project provided training in Community-Led Total Sanitation (CLTS) which stresses the importance of building community awareness of proper sanitation and hygiene. The subsequent counselling and firm and constant promotion through the AHAN project’s printing of costs and design of toilets help provide realistic costs for the building. Triggering activities develop the community awareness for the need for improved sanitation; however, this needs follow-up through post-triggering activities (follow-up of toilet construction and use, cleanliness of toilets, ability of all members in the family to access the toilet, providing technical support on construction) to ensure that villagers are building and using toilets.

The project effectiveness also follows the guidelines for the model healthy village program (toilet access, water access, indicators on nutrition, immunization, water drainage, etc) guidelines for certifying open defecation free villages and the guidelines for the VWSMCs.

### LESSONS LEARNT & RECOMMENDATIONS

#### LESSON LEARNT #12: Village level ownership is important for maintaining good hygiene and sanitation practices

#### RECOMMENDATIONS

Community volunteers and Village Health Volunteers (VHV) should do a simple assessment for cases of diarrhea in the village. They should assess the severity of the diarrhea and the likely cause, as this may be due to lack of environmental hygiene, unsafe food handling, lack of handwashing with soap, or other illnesses that may cause diarrhea. This way, the community can get better understanding of the cause of diarrhea and can use this for improving environmental hygiene.
LESSONS LEARNT & RECOMMENDATIONS

Well-functioning WVSMCs can provide guidance and promotion of WASH practices for the entire community, not only WASH beneficiaries. As noted in the narrative, nearly half of the populations in target villages do not have toilet access, which may be due to poor hygiene practices for those who do not have toilets. In order to ensure quality of established and the 28 villages without WVSMCs, future projects should ensure standards for follow-up of WVSMC such as using a checklist for monitoring the performance of the committees in line with the MOH guidelines.

Continue to promote S4N groups for using loans from the saving funds for toilet construction. While AHAN and government partners have presented the toilet building options for types of toilets and associated costs, people in FGDs who lack toilet access as even in S4N groups say they do not have money to build toilets.

The planning for saving money developed by GIFT should include the planning for toilet building and should be an integrated effort by WVSMC members and S4N members.

Developing the WVSMC capacity takes time. Some villages have what they call ‘Water and sanitation committee’ which is formed of the village chief and section leaders in villages. However, they don’t collect water user fees, only collect fees when the water point needs repair, don’t have village plan and low toilet access.

VWSMC should have continued monitoring to ensure the quality of their actions.

The work for setting up and mentoring the VWSMC should start at the beginning of the project, should include training and practice in CLTS so that members become co-facilitators, and that they can eventually maintain hygiene in the village through regular post-triggering activities (such as the AHAN staff mentoring staff with village admin, clean water department, village cluster chief, until the completion of the NCE plan in September 2022) with post-monitoring discussion on how to improve monitoring and brainstorming on how to solve problems. Eventually, the committee would do the activities by themselves and send reports to district health offices. The development of the VWSMC to be able to extend activities throughout the entire villages including non-target families should be a model for continued community development.
Gender has been integrated into all the project activities, first with overall gender training on identifying male and female roles in the initial gender training. Gender understanding and analysis for transformation of male and female roles for equitable division of work/household and childcare. The project provided labor saving devices to women, such as water storage tanks which reduced the time spent for women to carry water (rain water harvesting, use of electric pumps to fill water tanks or any members of the family to carry water to fill the storage tank) both for home use and smaller tanks next to gardens to ensure that gardens can be watered during the dry season. Women have valued the handcarts for carrying wood, carrying equipment or vegetables to/from their gardens. Energy efficient stoves reduced the amount of wood for cooking, which reduced the need to gather wood in the forest.

C-Change activities have further brought together villagers to further analyze and plan methods for men and women to help each other, which included written weekly plans on the household tasks and who should be responsible for them. All the project activities include a gender component, such as the Gender Inclusive Finance Literacy Training (GIFT) in which both men and women participate in defining family goals in combination with membership in the Savings for Nutrition Groups. A GEDSI plan has been developed and some activities have been carried out such as training for AHAN staff but other community-based activities have not been implemented.

EFFECTIVENESS

The AHAN project has been effective through providing consistent messages, building up number of people who have changed behavior to support each other, and providing these messages in all activities has demonstrated that gender roles in these target villages are amenable to change. The initial AHAN gender training raised awareness in men and women, and the integration of gender focus into other activities has continued to reinforce this awareness. The GIFT training also started with gender awareness and the need for continued shared responsibilities in financial planning between men and women.

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CONCLUSIONS

Labor saving devices have proved useful. The hand carts have reduced women’s labor from carrying water and wood. Piped water has reduced the need for carrying water from communal water points but the carts also allow women to bring their products to nearby markets or other uses. The water tanks also allow filling water closer to home so that husbands or other men in the household can stock the water tank.

Rice mill operators are valued by the target villagers and they have been able to continue serving the AHAN target population even after all coupons have been collected. Of the 12 rice mill operators interviewed, only one operator is not likely to continue as there is too much competition for milling rice in surrounding areas. A factor for sustainability has been that parts are now available in some districts so that the rice mill operators can fix their own machines. Business planning has helped them to understand how to ensure that they are making money over their expenditures. However, the risk is, that in the future, other operators will open nearby with improved machinery which separates the different grades of bran (which sells for different prices). Also, while the rice mill operator is able to sell bran to outside customers, some of the people bringing their rice for milling may want to buy the bran for a lower price to feed their animals. The focus of AHAN in participatory activities, learning and analysis is important to engage people instead of presenting ideas in lecture style of telling people what they have to do. The ability to examine and make change is important and is important for the success of C-Change in discussion and analysis of gender, and in GIFT through the shared discussions and decision making between husbands and wives.

LESSON LEARNT & RECOMMENDATIONS

LESSON LEARNT #13: Discussion of village issues, brain storming solutions and support for problem solving and can increase family ownership and increased inclusion for women and people with disabilities

RECOMMENDATIONS

C-Change groups should have continued follow-up on the implementation of their plans, and the roles of community volunteers who will be helping promote gender plans. By the end of the project, it would be helpful for AHAN staff to mentor community volunteers who will be leading the follow-up of C-Change activities so that the LWU and community volunteers are effectively leading the groups and follow-up on the plans.

It would be also useful for AHAN reporting if a consolidated list of the plans for the villages could be compiled so that planning with the community volunteers can be conducted. LWU and their implementation of future project activities should include the quality and monitoring of the village activities which have been handed over to the villages to ensure the quality of the interventions and plans.
Specific Objective 5

Multi-Sector Coordination

WVI-L has been actively involved in national, province and district multi-sector coordination. At the national level, WVI-L has been involved in the mid-term review of the National Nutrition Strategy (2016 – 2025) and Plan of Action (2016 – 2021) which resulted in a new National Plan of Action for Nutrition (NPAN) 2021 – 2025 for the NNSPA. This NPAN document reviewed lessons learnt (which included WVI-L's experience with AHAN), redefined indicators and planning in the 22 priority interventions, as well as acknowledged inclusion of additional areas such as gender.

WVI-L has also been an active partner in the Scaling Up Nutrition Civil Society Alliance (SUN CSA) which brings together international Non-Governmental Organizations (INGOs) and Civil Society Organizations (CSOs). WVI-L has contributed reports to the annual meetings and contributed funding for some training which was open to both INGO and CSO members. At the province level, WVI-L has participated in "Learning Workshops" organized by SUN/CSA.

Since the start of the project’s implementation, WVI-L organizes quarterly District Implementation Management Committee (DIMC) meetings and six-month Provincial Implementation Management Committee (PIMC) meetings. These meetings review project progress with partners and have further developed the understanding of the importance of the sectors to contributing to improved nutrition and health. Most recently, AHAN / WVI-L has provided funding for the Learning Workshop in Attapeu as well as other learning workshops. These workshops bring together district, province government partners, INGO staff and CSOs to share experiences and lessons learnt.

The convergent multi-sector approach has had a big impact on nutrition and health, which has also increased the awareness that it is not the responsibility of one sector, but many sectors and partners. AHAN has also demonstrated that partnership with other organizations to improve training materials, handbooks, posters and mass media is important as other organization have lessons learnt.

RECOMMENDATION

Regarding the newly revised National Plan of Action for Nutrition (NPAN), it is also important that nutrition actions are integrated within the work of the Lao Women’s Union. Other mass organizations, such as the Lao Youth Union, have many comparative advantages and have much to contribute to nutrition efforts across multiple SOs and Interventions, including appropriate attention to nutrition during disasters and emergencies. For this reason, this NPAN features the involvement and engagement of sectors other than health, education, and agriculture.