Nutrition Sensitive Value Chain Analysis

EXECUTIVE SUMMARY

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

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Background

In spite of the strong economic growth and rapid development in the last decade, Lao PDR still faces many challenges to meet the global Millennium Development Goals (MDGs). One of the main national concerns is the food security and malnutrition issue with a recent estimated 33% of under-five children (CU5) being stunted. Malnutrition is a complex condition that can involve multiple, overlapping deficiencies or excess of nutrients. The causes of malnutrition are multiple, cutting across sectors such as food, health, and care, etc. and all levels from individual, household, community, society and government. To cope with the malnutrition issues, the National Nutrition Strategies (NNS) has clearly identified the causes and set out the strategic framework work with request of closer partnerships, collaborations and supports from international organizations.

Funded by the European Union grant, Specific Objective 1 (SO1) of the Accelerating Health Agriculture and Nutrition (AHAN) project aims to ensure the availability of a diversified food all year-round in both quantitatively and qualitatively among project beneficiaries. To address these nutrition and food security gaps, the project will promote the intensification and diversification of selected crops and livestock production with better market linkages through Nutrient Sensitive Value Chain (NSVC) approaches.

Methodology

NSVC is a food value chain consists of all the stakeholders who participate in the coordinated production and value-adding activities that are needed to make food products. It aims at improving the availability, affordability, quality and acceptability of nutritious food through leveraging opportunities to improve the supply and demand for nutritious food (minimize loss) at each step of the chain. The NSVC framework tries to analyze the complexity of food systems and identify interventions to ensure that food CV contribute to improved food security and nutrition.

The AHAN project NSVC Analysis (NSVCA) started with designing the criteria for selection of shortlisted nutritious rich food value chains that have potential to improve local nutrition with potential to improve productivity and value addition, as well as, potential to increase income through production, demand and income impact pathways for better food system. In consultation with and verification from PAFOs, DAFOs and project technical team, and targeted communities, the nutrition rich foods including native chickens, frog, cricket, corn, banana, pumpkin and moringa were selected for detailed VC analysis in targeted districts and provinces. These products particularly, some crops are relatively high in protein, mineral, vitamins, dietary diversity, local availability and familiarity, as well as, potential for value addition.

Field visits were conducted in seven targeted districts of three provinces namely: Samakhiy, Saravan, Laongam, Ta-qy, Sepon, Atsaphone and Xenbouly. A total of 49 individual households, 21 Focus Group Discussions (FGDs) in 14 main villages were participated in the discussion and interviews. About 20 local collectors, traders, wholesaler and retailers who are based in surveyed villages, districts, Pakse and Savannakhet were also discussed and interviewed.

Key findings

Results of the field survey indicate that native chicken, corn, banana and pumpkin are very localized in targeted districts with some local market linkages have been well established; however, rather low productivities were commonly observed mainly, resulting from “low input, low output” with organic by default and traditional production system practiced and thus, low profit and low return on labor. The indicative cost-benefit analysis of these selected products shows that current production system, farmers get profit (profit margin) of about 35 USD/83 birds/year/HH (13.9%) for chicken, 155 USD/0.48 ha/year/HH (60%) for corn, 169 USD/0.82 ha/year/HH (57%) for banana and 115 USD/0.5 ha/year/HH (50%) for pumpkin.

While raised frog, raised cricket and moringa are considered new in some smaller districts particularly, in some remote villages, production and consumption of these products are more common in bigger cities and are expected to immerse. The cost-benefit analysis of the frog production shows that, metamorph producers could earn at least 50% for the profit margin compared to about 99 USD/400 metamorps/year/HH. Cricket raising provides about 182 USD/2 boxes/5 cycles/year/HH with a profit margin of about 33%. No cost-benefit analysis for moringa was conducted as it is new and nearly no trading at the moment (except for wet market in Savannakhet province).

Potential in improving of productivities through production intensification and diversification exists through the promotion of the NSVC approaches from better inputs provision, introduction of intensive or semi-intensive production system, harvesting and post-harvesting and processing. Currently, three main challenges faced by livestock farmers are: epidemics disease control, production improvement and better quality breeds for native chickens; high input cost, un-stable supply of metamorph and raising techniques including disease control and market for raised frogs; raising techniques, pest and high feed price for cricket raising.

While crop farmers indicate that water sources and facility for dry season corn production, processing technologies and market for rainy season are the main constraints for corn producers; production techniques and disease control as well as, processing technique and access to water sources are the main constraints for banana and pumpkin production.

Potential for productivity’s improvement

Constraints

Field visits were conducted in seven targeted districts of three provinces namely: Samakhiy, Saravan, Laongam, Ta-qy, Sepon, Atsaphone and Xenbouly. A total of 49 individual households, 21 Focus Group Discussions (FGDs) in 14 main villages were participated in the discussion and interviews. About 20 local collectors, traders, wholesalers and retailers who are based in surveyed villages, districts, Pakse and Savannakhet were also discussed and interviewed.
Recommendations

In order to highlight the NSVC approaches for better contribution of the shortlisted products to local nutrition improvement and therefore, better food system, following interventions are strongly recommended.

Given that there is minimal awareness on food security and nutrition, promotion of nutrition awareness from native chickens, raised frogs, cricket, corn, banana, pumpkin and moringa’s consumption to stimulate both the supply and demand along VCs in targeted villages and districts is crucial. The promotion could be done on any occasions when there are any meetings, through specific nutritional campaigns and distribution of simple and visual materials. Provision of sufficient information to propagate and to raise awareness of selected nutritious rich products to targeted commodities through participatory demonstration of diverse food recipes.

Consolidate and distribute simple and visual (poster, leaflet, video, etc.) technical improved production model package for selected livestock with demonstration of improved semi-intensive production system (breed selection, penning, feeding-forage, vaccination and health care, etc.) and improved production package for crops: cultivating schedule, soil, variety and seed selection, proper land preparation, planting, farm-management (weeding, GAP fertilization and disease control, watering, etc.), harvesting and post-harvesting is recommended.

Synthesize NSVC’s materials and provide capacity building to extension and field staff to better understand the NSVC approaches and its impact pathway. At the same time, select targeted motivated and active farmers and form producer groups. Ideally, the group should be about 5-10 HHs/village from the beginning and scaling out in following years. Women should be encouraged to join as they are considered the main persons to take care of these chickens, frogs and cricket raising and for some crops such as moringa. Identifying successful farmers who have adapted and adopted improved production technologies and utilize them as “smart lead farmers” to accompany extension staff in technical trainings.

Participatory activity planning with selected farmers with clear schemes for necessary inputs supports (good quality breeds, tools, materials and equipment, forages seeds and feed, seedling, etc.). The physical supports should be not more than 2-3 production cycles. In some villages, farmers are very demanding; therefore a clear activity plan should be strategized from very beginning.

Provide improved technical production trainings for native chickens, frogs and crickets, corn, banana, pumpkin and moringa to producer groups with clear demonstration of concerned issues. Support some committed and active farmers to be on the job technical trainings are also recommended. Organize study tours and cross visits to improved production sites or technical learning centers for better production technique and market linkages.

Facilitate in group formation with building the capacity of group committee. Improve group management through better business planning (raising period and cycling and production seasonality) and linking to markets for better quality supply and price. Close monitoring the producer groups and timely provide managerial and technical advisory supports. Ideally, each group should be mentored once a week. Where possible, utilize social media to share technical experience and market information of the selected VCs.