

ACIAR Cassava Livelihoods and Value Chain Program
Mid-term Review
ASEM/2014/053 & AGB/2012/078
Rashmi Hotel, Vientiane Lao PDR
January 15-19th 2018

**Progress towards Outputs/Outcomes
ASEM/2014/053**

This report gives a brief overview of the progress towards outputs and objectives of ASEM/2014/053 as of December 2017. Activities and outputs are presented in a table for each Objective and comments are given regarding the progress towards achieving each output. A summary of key outputs, achievements and challenges is also given for each objective. More detailed information can be found in the individual reports for each project location and in the associated presentations during the mid-term review meeting.

Objective 1: Assess the current production, marketing, and institutional arrangements for cassava in major agroeconomic zones and value chains in Laos and Cambodia.

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comment
1.1	Review information on global and national cassava production, utilisation, trade, and policies.	Review report	Annually	Analysis of market and policy environment (including risks) of smallholder cassava production at the regional and global scale, including implications for local project activities.	Database maintained. ACIAR blog/Facebook updates Presentations: -World Roots and Tuber congress (China) -Starch World (HCMC) -CIAT Cassava Retreat (Hanoi) -AMC (Mandalay) -ASEM meetings (Vientiane, Phnom Penh) - North-West Vietnam Research Symposium (Hanoi)

1.2	Conduct value chain analyses in case study areas (primary and supporting actors, local policy environment).	Value chain reports	February 2017	<p>(1) Assess current production and marketing systems for cassava in different value chains.</p> <p>(2) Provide baseline data for project evaluation.</p> <p>(3) Spatial analysis of product and information flow for selection of villages in Activity 1.3.</p> <p>(4) Identify and recruit participants for activities under Objective 2.</p>	<p>Value chain assessments were undertaken in Kratie during May 2016. This assessment included farmer focus groups and semi-structured interviews with value chain actors.</p> <p>Value chain assessments were undertaken in Bolikhamsay during May 2016. This assessment included farmer focus groups and semi-structured interviews with value chain actors in Bolikhhan and Vienthong Districts.</p> <p>Value chain assessments were undertaken in Xayabouli during October 2016. This assessment included farmer focus groups and semi-structured interviews with value chain actors in Kenthao and Paklai districts.</p> <p>Presentations:</p> <ul style="list-style-type: none"> - International Tropical Agriculture Conference (Brisbane) - North-West Vietnam Research Symposium (Hanoi)
1.3	Conduct key informant and group interviews in case study areas to ascertain socio-economic relations affecting access to and collective management of farm resources and access to input and output markets.	Socio-economic analysis reports	April 2017	(1) Assess current production and marketing systems in different household types and value chains, including varieties, planting material, soil and nutrient	Farmer focus groups were conducted in Kratie, Bolikhamsay and Xayabouly in conjunction with the value chain assessments.

1.4	Conduct household surveys in case study areas to determine current farm-household types, livelihood activities, production practices, market linkages, decision-making, and constraints to adoption of improved practices.	Household survey reports	July 2017	management, intercropping, labour utilisation (including gender division), post-harvest practices, and constraints to adoption of improved technologies. (2) Provide baseline data for project evaluation.	Household surveys were completed in Bolikhan and Viengthong districts of Bolikhamsay in May-June 2017, with a total of 180 surveys undertaken for the province. Surveys were completed in Xayabouly Province in July 2017. A total of 180 surveys were completed in Paklai and Kenthao Districts. A total of 311 surveys were undertaken in Kratie and Stung Treng
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1.1 Review information on global and national cassava production, utilisation, trade, and policies

The project has been monitoring developments in the global/regional cassava market and communicating the information to stakeholders. Analysis was presented in a number of workshops, conferences, and blogs via social media. A database has been created to monitor price and trade flows utilising published data, online national databases, and industry contacts. The project is currently considering options to crowd source local price information and provide that information back to farmers and policy makers. However, price series data is more difficult to construct in Laos and Cambodia relative to Vietnam and Thailand.

1.2 Conduct value chain analyses in case study areas

Participants in the value chain training in Vientiane in May 2016 learned basic principles of value chain analysis and conducted a preliminary value chain mapping exercise. This formed the foundation for site selection of key production and value chains for more detailed analysis in the field.

Members from NAFRI Policy Research Centre and Agricultural Research Centre and representatives of PAFO and DAFO conducted value chain analyses in Kenthao and Paklai districts in Sayabouly. The team from NAFRI worked independent from the UQ-CIAT team after the completion of activities in Bolikhamxai in last reporting year. Information was gathered from value chain actors through face-to-face interviews using a standardized questionnaire. Value chain actors interviewed included large and medium scale starch and dried chip processors, small-scale collectors and assemblers, medium scale traders and larger scale traders and brokers.

The questionnaire covered both value chain and technical aspects including the following topic areas:

- Purchasing
- Sales
- Cost Structure
- Access to and provision of credit
- Access to information and training
- Cassava Varieties
- Fertilizer use
- Land Preparation
- Soil Conservation
- Pest and Disease Management
- Weed control

1.3 Conduct key informant and group interviews in case study areas

In conjunction with the value chain analyses, focus group discussions were conducted with small (10-15) groups of farmers. Some activities were conducted as a single group, others in mixed gender groups, and some by gender groups.

The key activities were:

1. Key village information (village chief and committee)
2. Listing of all livelihood activities (agricultural, non-farm, off-farm, migration)
3. Ranking of relative importance of activities for food security, cash income, labour utilisation (smaller groups by gender)
4. History of cassava production and marketing in the village and other key events
5. Seasonal calendars (smaller mixed gender groups)
6. Cassava production enterprise budgets (smaller mixed gender groups)
7. Mapping of the cassava value chain (smaller mixed gender groups)
8. Discussion of production and marketing problems (smaller groups by gender)
 - Ranking of these problems
9. Discussion on potential solutions and interventions (smaller groups by gender)
 - Ranking of these solutions

1.4 Conduct household surveys in case study areas

Baseline household surveys to determine current farm-household types, livelihood activities, production practices, market linkages, decision-making, and constraints to adoption of improved practices have been developed and implemented in conjunction with partners in Laos and Cambodia. Surveys have been translated into Laos and Khmer and loaded onto electronic tablets running the Commcare app.

Training on the household survey and the use of electronic tablets for surveys was undertaken for the Lao survey teams in Vientiane in July 2017. Pre-testing was also undertaken in Vientiane and Bolikhamsay at that time to build the practical experience of the survey teams and to identify any potential challenges with the electronic surveys. Household surveys were undertaken in Bolikhamsay in May-June 2017 and in Xaybouly in July 2017. A total of 180 households were surveyed in each province, with the survey being undertaken in 2 districts per province.

Training on the household survey and the use of electronic tablets for surveys was undertaken for the Cambodian survey team in Kratie in July 2017. Household surveys were completed in Kratie (201 households) and Stung Treng (110 households) during September and October 2017.

Objective 2: Increase the adoption of improved cassava production, resource management, and post-harvest practices by strengthening linkages between farmers and research, extension, and industry actors.

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comments
2.1	Conduct workshops with identified stakeholders in each site to plan, prepare for, and review cooperative activities.	Workshops successfully conducted and reported.	February 2017	Plan of cooperative activities; elements of innovative agribusiness models.	In Feb 2017 a small planning workshop was held in Vientiane with NAFRI, Province and District staff to plan activities and responsibilities. Team planning meeting was held at CARDI in March 2017 to plan activities and develop protocol.
2.2	Establish on-farm demonstration trials of improved cassava cultivation practices and conduct participatory evaluation of new varieties, fertility management, pest and disease management, intercropping, and post-harvest practices with farmers and other industry stakeholders.	On-farm trials successfully established Evaluation reports prepared	Establish Mar-Apr 2017 Harvest reports in Feb-March 2018-2019	Locally adapted technologies tested. Economic analysis to contribute to Activity 2.3.	Variety, fertiliser and intercropping trials have been planted in Xayabouly and Kratie. Variety and fertiliser trials have been planted in Bolikhamsay.

2.1 Identification of priorities

The value chain analysis and focus groups have provided some initial ideas from different stakeholder perspectives on the key limiting factors and potential interventions. These were discussed at the annual review and planning meetings to develop the strategy for 2017.

After the value chain assessment, it was decided that while some value chain actors would benefit from increasing productivity it was risk for strong engagement this early in the project due to the current market uncertainties, high level of debt, and weak existing relationships. This is different to the situation in the parallel AGB project. Therefore, a stronger partnership with local government and NGOs in being pursued initially with private sector actors invited to participate in training and harvest field days.

2.1 Establish on-farm demonstration trials

An overview of the trials undertaken in 2017 in Bolikhamsay, Xayabouly and Kratie is given in this section. Details of trial protocols and results for 2017 are presented in each of the separate site reports.

Variety, fertiliser and intercropping trials have been planted in Kratie, variety and fertilizer trials have been planted in Bolikhamsay, and variety, fertiliser and intercropping trials have been planted in Xayabouly. The trials were planted in April-May 2017 and are expected to be harvested in February-March 2017.

Variety trials in Laos will involve a total of 7 varieties of cassava to be evaluated with cassava collectors and cassava companies:

1. Kasatsad 50 (KU 50)
2. Rayong 9 (R9)
3. Rayong 11 (R11)
4. Rayong 72 (R72)
5. KM 140
6. KM 21-12
7. Local variety

Fertilizer trials in Laos involve a split-plot design with 3 Replications with 6 treatments and 2 varieties. The objective is to study the response of two cassava varieties to the application of various combinations of fertilizers (N, P and K) in order to find the best and most economic fertilizer rate to obtain and maintain high cassava yields.

Intercropping trials in Laos aim to study the different legume intercrops with cassava to find the best and most economic option for farmers in Xayaboury province.

Variety trials in Cambodia aim to to evaluate the improved cassava varieties to obtain the best adopted varieties in order to improve cassava production systems in Kratie. Varieties evaluated are:

1. Rayong 72(Thai variety)
2. Huay Bong 60 (Thai variety)
3. KM98-1 (Vietnam variety)
4. KU50 (Thai variety)
5. SC 9 (China variety)
6. SC8 (China variety)
7. Local variety

Fertilizer trials in Cambodia involve a split-plot design with 3 Replications with 7 treatments and 1 variety (KU50). The objective is to study the response of KU50 to the application of various combinations of fertilizers (N, P and K) in order to find the best and most economic fertilizer rate to obtain and maintain high cassava yields.

Intercropping trials in Cambodia aim to study the different legume intercrops with cassava to find the best and most economic option for farmers in Kratie province. The trial is being conducted at two sites and has three replications and four treatments (maize, peanut, mung bean, no treatment).

Objective 3: Develop capacity for farming systems research and policy analysis and promote policy dialogue on the opportunities for industry development and livelihood enhancement through supported smallholder models.

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comments
3.1	Review and document local and national policies with regard to smallholder cassava and identify opportunities for scaling up research outcomes.	Review report	February 2017	Options for scaling up technologies and organisational arrangements.	Frequent discussion with stakeholders. Formal report to be drafted

3.2	Conduct workshops to develop local capacities for on-farm research in cassava, farming systems evaluation, value chain analysis, and evidence-based policy analysis and dialogue.	Training workshops conducted, evaluated, and reported	February 2017	Capacity to implement activities under Objective 2.	<p>Laos: Training on sustainable cassava production conducted in Vientiane with national, provincial and district staff. Some private sector participation. Practical value chain training was conducted in Vientiane with key stakeholders to map key value chains in target provinces in Lao PDR. Training on household livelihood surveys and use of electronic tablets for gathering information conducted with partners in Vientiane in April 2017.</p> <p>Cambodia: Training on sustainable cassava production conducted in Kampong Cham with national, provincial and district staff. Some private sector participation. Practical value chain training was conducted in Kratie Province with stakeholders to map value chains. Training on household livelihood surveys and use of electronic tablets for gathering information conducted with partners in Kratie in July 2017.</p>
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3.1 Review of national policies

Lao PDR: Cassava in Lao PDR has become one of the national ‘priority crops’. However, there are very few direct policies supporting this and there is limited experience on the government side regarding the cultivation of the crop. The high profile failure of a starch factory in Vientiane Capital Prefecture has received the attention of MAF. The NAFRI project team has been involved in ongoing research and briefing MAF on problems and potential interventions.

Cambodia: There are several international agencies working on cassava in Cambodia. The largest in a program run by the UNDP. The project team have been involved in these discussions and will continue involvement during the next meeting in July 2017. The aim is to provide evidence to support the development of policies by these larger projects.

Communications

The Facebook group “ACIAR Cassava Value Chain and Livelihoods Program” now has more than 630 members. Members include key national policy makers, national level researchers, Provincial and District staff, private sector actors (processors and traders), and farmers. At the moment, much of the content is in English, but it will provide a useful way to point stakeholders to results as they become available in different languages.

<https://www.facebook.com/groups/1462662477369426/>

The CRP RTB continues to give visibility to the project activities. In CRP II the project will be mapped to Flagship 5 – “Improved Livelihoods at Scale”.

Conference presentations:

Keynote presentation at the World Congress on Roots and Tubers:

<https://www.slideshare.net/JonathanNewby/cassava-hidden-ingredient-in-global-supply-chains>

Presentation at the CIAT Cassava Retreat

<https://www.slideshare.net/JonathanNewby/newby-cassava-retreat-2017>

Paper at the International Topical Agriculture Conference (November 2017)

Link to presentation

Link to paper

Presented at the North-West Vietnam Research Symposium, Hanoi (November 2017)

Jono Presentation on markets

Thuy Presentation on Son La survey

Blogs:

<http://aciarblog.blogspot.com/2016/04/cassava-farmers-in-southeast-asia.html>

Posters:

Presented at the FAO workshop for the Capacities Development for Agriculture Innovation System (CDAIS)

<https://www.slideshare.net/JonathanNewby/strengthening-value-chain-linkages-to-improve-profitability-and-sustainability-of-cassava-production-systems-in-se-asia>

Presented at the North-West Vietnam Research Symposium, Hanoi (November 2017)

Dom poster on value chains

Dat/Hanh poster on Dak Lak value chains

Nozomi poster on gender research