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

### Progress towards Outputs/Outcomes AGB/2012/078

This report gives an brief overview of the progress towards outputs and objectives of AGB/2012/078 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 opportunities and constraints for smallholder production and marketing of cassava within different value chains**

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comments
1.1	Review cassava production, use and trade, and main substitutes in production and final markets	Annual update on cassava production, trade and utilisation in target countries and the region	Annually	Inform stakeholders of trends and changes in policies at the regional and global scale that will impact interventions targeted at the national and local scale	Database maintained. ACIAR blog/Facebook updates Presentations: -World Roots and Tuber congress (China) -Starch World (HCMC) -CIAT Cassava Retreat (Hanoi) -AGB Inception meeting (Malang, Sonla, Daklak) -AMC (Mandalay) -ASEM meetings (Vientiane, Phnom Penh) - North-West Vietnam Research Symposium (Hanoi)
1.2	Conduct training in value-chain methodologies, economic analysis and gender analysis	Training material developed for use within the region Training report	June 2016	Common methodologies and skills developed for project activities	Indonesia: Practical value chain training was conducted in Malang with key stakeholders to map key value chains in target provinces in Indonesia. Vietnam: Practical value chain training was conducted with stakeholders to map value chains in Son La and in Dak Lak.

1.3	value chains in each site, including primary and supporting actors and local policy environment, and where feasible conduct initial mapping of value chains of potential intercrops.	including actors, processes, flows of information Geographical representation of production and information flow is different VC and production settings Report on gender norms within the value-chain in different sites		communes and villages to be involved in Activity 1.3 Identify key actors to be involved in training of improved practices and extension (2.1) Identify location for demonstrations in objective 2. Identify key stakeholders to be involved in objective 3.	Value Chain assessment including key informant interviews conducted in Son La and Dak Lak. Indonesia: Value Chain assessment including key informant interviews conducted in Sikka Regency and in North Sumatra. Presentations: - International Tropical Agricultural Conference (Brisbane) - North-West Vietnam Research Symposium (Hanoi)
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1.4	Conduct farm surveys to find current production practices, market linkages, sources of information, risks, and constraints to adoption	Establish baseline for current practices, perceptions, aspirations and opportunities. Data to be gender disaggregated.	Jan 2017	Identify 'demand' for various technologies and constraints Set priorities	The first round of focus groups was conducted in conjunction with the value-chain assessments. <b>Vietnam:</b> Village focus groups conducted in 4 villages in 2 districts in each of Son La and Dak Lak <b>Indonesia:</b> Village focus groups conducted in four villages in Sikka Regency and three villages in Simalungun Regency North Sumatra.  Household surveys were completed in North Sumatra in May-June 2017, with a total of 140 surveys undertaken for the province Household surveys in Son La and Dak Lak commenced in June 2017 and were completed in August 2017 with 256 households surveyed per province Presentations: - North-West Vietnam
					Presentations: - North-West Vietnam Research Symposium (Hanoi)

### 1.1 Review cassava production, use and trade, and main substitutes in production and final markets

The project has been monitoring developments in the global/regional cassava market and communicating the information to stakeholders. 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. Analysis was presented in a number of workshops, conferences, and blogs via social media. These include keynote presentations at research and industry conferences such as the World Roots and Tuber Congress (2016), StarchWorld (2017) and the North-West Vietnam Research Symposium

(2017). Presentations were also made research and industry partners in Vietnam and Indonesia during the inception meetings and field visits. Given the importance of the Vietnam market to Laos and Cambodia the information collected in AGB has also been used to inform the ASEM project and contribute to the Agricultural Master Class series in Myanmar.

## 1.2 Conduct training in value-chain methodologies, economic analysis and gender analysis

Participants in the value chain training in Malang in August 2016 and in Son La and Dak Lak in September 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. In Indonesia an invitation was extended the agricultural economic staff of several non-project partner universities in Malang and the local university in Maumere. A key feature of the value-chain training was the involvement of government and private sector partners. This enable the collection of useful information and better planning for the field work. It also helped build the relationship between the research team and our government and private sector stakeholders. Another feature was the emphasis on gender and social inclusion.

#### 1.3 Assess cassava value chains in each site

Staff from partner organizations in Indonesia conducted value chain analyses in Sikka Regency (NTT) in August 2016 and in North Sumatra in October 2016. Value chain analysis in Son La was undertaken by staff from NOMAFSI during September 2016, and staff of TNU also conducted value chain analyses in Dak Lak during September 2016.

In all sites, 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

The survey was undertaken electronically, using the Commcare app loaded onto Android tablets. The results of the value chain analyses have been presented the North-West Vietnam Research Symposium in Hanoi (November 2017).

#### 1.4 Conduct farm surveys

In conjunction with the value chain analyses, **focus group discussions** were conducted with small (10-15) groups of farmers at all sites. 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)
  o Ranking of these problems
- 9. Discussion on potential solutions and interventions (smaller groups by gender)
  - Ranking of these solutions

**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 Vietnam and Indonesia. Surveys have been translated into Vietnamese and Indonesian 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 Vietnamese survey teams in Hanoi (for survey in Son La) and Dak Lak in April 2017. Pre-testing was also undertaken in both provinces at that time to build the practical experience of the survey teams and to identify any potential challenges with the electronic surveys. Household surveys commenced on June 16<sup>th</sup> in Dak Lak and June 17<sup>th</sup> in Son La and were completed in August 2017. A total of 256 households were in each province, based on a sample size of 32 households per village, 2 villages per commune, 2 communes per district and 2 districts per province.

Training on the household survey and the use of electronic tablets for surveys was undertaken for the Indonesian survey team in Malang in April 2017. Pre-testing was also undertaken close to Malang. Household surveys were completed in North Sumatra during May 2017, with a total of 140 surveys undertaken for the province. With the major decrease in the cassava price many farmers were considering alternative crops making the process more challenging. Household surveys NTT were undertaken in August 2017 with a total of 114 surveys undertaken for the province.

Data from the household surveys in Vietnam has been collated, cleaned and preliminary analysis has been undertaken. The results of the survey have been presented at the International Tropical Agriculture Conference in Brisbane (November 2017) and the North-West Vietnam Research Symposium in Hanoi (November 2017).

**Gender and Social Inclusion Case Studies:** In-depth interviews were conducted in Son La and Dak Lak Province with 64 ethnic minority men and women respectively with a specific focus on social and gender dimensions of production and the relationships with other valuechain actors. Study villages were selected based on cassava production and socioeconomic status. We included two contrasting villages from each commune to see how socio-economic status and proximity to a main road influence the ways men and women engage in cassava production. For Dang Kang commune, however, we only selected one big village as there are no contrasting villages in the same commune. Interviewees were selected in each study village with advice from the village leader and carefully included major ethnic groups and both men and women, and poor and better-off within the village.

Date	Provinces	Districts	Communes	Villages	Socio-economic	Interviewees	
		ethnicity of interviewees		ethnicity of interviewees	М	F	
16-23 April	Sơn La	Mai Sơn	Nà Ó't (productivity	Há Xét 70hh	Better-off, Poor Thai, Xinh-Mun	6	6
			the lowest in Son La)	Hủa Kẹt 28hh	Very poor Khơ mú	12	12
12-20 May		Thuận Châu	Bó Mười	Sót 50hh	Better-off Thai	12	12
				Nà Viềng 116hh	Poor, remote Thai	12	12
29 May-	Dắk Lắk	Ea Kar	Ea Sar	Thôn 3 105hh	Better-off Tay	9	9
9 June				Ear Sar 106hh	Poor, remote Ede	4	4
7-8, 26-30 June		Dang Kang	Krong Bong (Near a factory)	Curpam 120hh	Better-off & Poor mix, Ede	9	9

Information on field sites and interviewees - Gender and Social Inclusion Case Studies

#### Objective 2: Increase the adoption of improved and sustainable cassava technologies by strengthening linkages between primary value-chain actors (farmers, traders, processors) and with support actors (researchers, government agencies).

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comments
2.1	Conduct training in improved cassava practices, demonstration trials, and participatory research methods	Assessment of existing capacity (human, financial) of public and private actors in cassava technologies and extension methods Increased technical capacity of both public and private sector actors	Dec 2016	Conduct of trials and communication of practices within project Better targeting of research results to next users by understanding capacity and incentives for actors to link to farmers in different settings	Vietnam: TNU, Earkar and Krong Bong agriculture and Rural Development Offices and district extension stations provided training on improved cassava cultivation practices to 400 farmers in Ea Kar, Krong Bong and M'Drak in conjunction with value chain actors. Indonesia: Support to establishment of field trials and demonstration trials in both sites with government and private sector. Curriculum developed by UB and ILETRI staff for farmer field days in 2017.

2.2	Conduct participatory variety selection with farmers with varying levels of outside support from research institutions	Establishment and monitoring of different variety demonstration M&E of farmer participation in the different production and value-chain settings	End of season report in Yr. 2, Yr3 and Yr4	Locally adapted varieties Enhanced knowledge and skills of local actors including private sector	Variety adaptation trials were established in Sikka in 2016 with harvesting and evaluation in November 2016. Variety and agronomic practice trials established in Sikka, North Sumatra, Dak Lak and Son La in 2016/2017. Harvest and evaluation took place in Sikka and North Sumatra in September 2017 and in Son La and Dak Lak in December 2017/January 2018. Variety and agronomic trials in Sikka and North Sumatra for the 2017/2018 season have been established in October/November 2017.
2.3	Identify opportunities for on-farm improvement and commercial production of clean planting material	Report on the demand for clean planting material in different settings Report on the costs of different 'seed systems' Develop business models for different settings reported	Jan 2017 Jan 2017 Jan 2018	Prioritise production and value-chain settings where a business case exists for the development of 'clean-seed' systems Prioritise settings were extension should focus on on- farm management and IPM measures	Initial demand, incentives and potential entry points evaluated as part of value chain analysis. Links established with RTB seed system work and ACIAR SRA on CMD. Farmers and value chain actors actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed relative merits of trialled improved varieties.

2.4	Investigate opportunities to communicate information on pest and disease management to farmers through value-chain actors	Agreed plan for participation of value-chain actors in communication activities Report submitted	Jan 2017	Improved farmer knowledge of pest and disease management Further testing of agribusiness models	Initial demand, incentives and potential entry points evaluated as part of value chain analysis. Farmers, value chain actors and government staff actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed pest and disease control methods.
2.6	Evaluate opportunities for value-chain actors to promote adoption of appropriate fertiliser regimes	Agreed plan for participation of value-chain actors in communication activities	Jan 2017	Improved farmer knowledge of fertiliser requirements Further testing of agribusiness models	Initial demand, incentives and potential entry points evaluated as part of value chain analysis. Farmers and value chain actors actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed relative merits of improved soil fertility management.

### 2.1 Conduct training in improved cassava practices, demonstration trials, and participatory research methods

TNU, Earkar and Krong Bong argiculture and Rural Development Offices and district extension stations provided training on improved cassava cultivation practices to 200 farmers in 4 communes in Ea Kar and Krong Bong districts in March, 2017. The training was carried out in conjunction with the Eakar cassava starch processing factory and Dang Kang (Krong Bong) starch processing factory. At the request of M'Drak district, the same training course was provided to 200 farmers in M'Drak district with the training cost covered by the district's budget in April, 2017. The training was carried out in conjunction with the Khanh Duong starch factory in M'Drak district.

In Indonesia UB and ILETRI staff provided practical training to government and private sector partners including DINAS staff, local university staff, cassava trading agents and traders responsible for managing trials. Demonstration trials were established in Sikka (Flores) and Siantar (North Sumatra) with support from local cassava value-chain stakeholders. In June 2017 a two day workshop was held to develop training material for farmers. Topics covered cassava varieties, planting materials preparation, agronomic aspect of cassava growing (include cropping system), soil management (tillage requirement, fertilization and soil conservation), pest and diseases management and simple technology for cassava processing.

#### 2.2 Conduct participatory variety selection with farmers

An overview of the trials completed in 2016 and 2017 in Son La, Dak Lak, North Sumata and Sikka is given in this section. Details of trial protocols and results for 2016 and 2017 are presented in each of the separate site reports.

#### 2016 Trials – Sikka and North Sumatra

In order to introduce new genotypes from Malang to the project sites for evaluation in 2017, a small amount of material was transferred in 2016 an established as demonstration trials.

Variety trials in Sikka in 2016 were planted in January and harvested in November. The trials involved 3 replications of 8 varieties:

- 1. Sika Putih, Local variety, sweet
- 2. Sika Kuning, Local variety, sweet
- 3. Mentefa, Introduction variety, sweet
- 4. Tambah Udang, Introduction, sweet
- 5. Faroka, Introduction variety, bitter
- 6. UB 1/2, Introduction variety, bitter
- 7. UB 14772, Introduction variety, bitter
- 8. Gajah, Introduction variety, bitter

In North Sumatra 12 cassava genotypes including 3 local varieties widely planted by farmers, 2 genotypes from Brawijaya University, 2 newly national released varieties from ILETRI, and 5 genotypes popular in other provinces of Indonesia. A Randomized Completely Block Design with four replications was utilised. Planting was carried out at December 2015 and harvesting was undertaken at 25-28 October 2016, at the period of around 10 months after planting.

The list of twelve cassava genotypes were:

- 1. UB ½
- 2. UB 1472
- 3. Adira-1
- 4. Malang-4
- 5. Cecek ljo
- 6. Farsem (Faroka Sembung)
- 7. Gajab
- 8. Kejab
- 9. Caspro
- 10. Malaysia
- 11. Adira
- 12. Cikaret

Based on this varietal evaluation some of the newly genotypes introduced perform better than the existing local genotypes, especially Malang-4, UB1/2, UB1472, Adira-1, Farsem as well as Caspro (see Appendix). Farmer and trader preferences were also assessed based on criteria establish in a focus group discussion.

Enthusiasm of farmers and traders to the newly introduce genotypes was apparent during field day at harvest, some of participants received stem cutting would be planted for propagation. Six genotypes were elected for further evaluation in 2017 in five locations under the management of key farmers who are also typically traders with links to more farmers.

#### 2017 Trials – Son La and Dak Lak

Variety, fertiliser and intercrop trials have been planted in Son La and variety, fertilizer and density trials have been planted in Dak Lak. The trials in Vietnam were planted in April-May 2017 and were harvested in December 2017

Variety trials in **Son La** involve a total of 6 varieties including KM94, Sa21-12, Rayong 9, BK, 13sa05 and La Tre (Local variety). Of those, KM94 and Red La tre were used as a control.

Fertilizer trials in Son La involve 4 treatments and 1 variety conducted over 4 communes. The objective is to study the response of the cassava variety 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. Participatory risk assessments will be conducted farmers in the target villages to compare the perceptions of different members of the community (based on income, ethnicity, age, gender).

Soil management trials in Son La aim to study the different intercrops and soil management techniques to find the best and most economic option for farmers in Son La. The trial is conducted in all four communes and involves 6 treatments (peanut, cowpeas, mung bean, grass strips, contour lines, no treatment).

Variety trials in **Dak Lak** aim to to evaluate the improved cassava varieties to obtain the best adopted varieties in order to improve cassava production systems. The trial uses 3 replicates and 3 fertilizer treatments over 2 soil types. Varieties evaluated are:

- 1. KM94 (control)
- 2. KM140
- 3. Rayong 9 (KM21-12)
- 4. KM419
- 5. HL-S10
- 6. HL-S11
- 7. KM505

Fertilizer and density trials in Dak Lak involve a split-plot design with 3 Replications with 6 fertilizer treatments, three density treatments, 2 soil types and 1 variety. The objective is to study the response of the cassava variety to the application of various combinations of fertilizers (N, P and K) and densities in order to find the best and most economic fertilizer rate/density combination to obtain and maintain high cassava yields.

#### 2017 Trials – Sikka and North Sumatra

Variety and intercrop trials have been planted in Sikka and North Sumatra.

Variety trials in **Sikka Regency**, NTT were planted in November 2016 and involve evaluation of 10 varieties:

- 1. Sika Putih, Local variety, sweet
- 2. Sika Kuning, Local variety, sweet
- 3. Mentefa, Introduction variety, sweet
- 4. Tambah Udang, Introduction, sweet
- 5. Faroka, Introduction variety, bitter
- 6. UB <sup>1</sup>/<sub>2</sub>, Introduction variety, bitter
- 7. UB 14772, Introduction variety, bitter
- 8. Gajah, Introduction variety, bitter

9. Malang 6, Introduction variety, bitter

10. Aldira, Introduction variety, bitter

Fertilizer rate for all varieties is 300 kg Urea (46% N); 150 kg SP<sub>36</sub> (36% P<sub>2</sub>O<sub>5</sub>); 100 kg KCL (50% K<sub>2</sub>O) per hectare.

Intercrop trials in Sikka involved 4 replications of 6 intercrop treatments (cassava plus maize (local system), cassava plus maize (introduced system), cassava plus peanut, cassava plus mungbean, cassava plus soybean). 28 farmers attended field days during harvesting the harvesting the maize intercrops and around 30 farmers and value chain participants attended the field day for the harvesting of the cassava.

Variety trials in **North Sumatra** involved the evaluation of 6 cassava varieties (Malang-4, Adira-1, UB1/2, UB1472, Farsem and Caspro) under 4 harvesting periods (8 months, 10 months, 12 months and 14 months). Strip plot design with three replications is applied to run this experiment with experiments being undertaken in 6 sites (Siantar, Raya, Tiga Dolok, Tanah Jawa, Bandar and Prosea).

Fertilizer application trials in North Sumatra were undertaken in Siantar at an experimental field belonging to PT. Bumi Sari Prima. Strip plot design with three replications is used to carry out this field experiment. The treatment structure of this fertilizer application trial is 7 different fertiliser treatments (including farmer practice) over two cassava varieties (Malang-4 and Malaysia)

Intercropping trials in North Sumatra involve demonstrations of intercropping of grafted and ordinary cassava with peanuts and peanuts followed by mungbeans. These are being undertaken on 6ha of upland fields belonging to farmers and PT. Bumi Sari Prima.

### 2.3 Identify opportunities for on-farm improvement and commercial production of clean planting material

Initial demand, incentives and potential entry points evaluated as part of value chain analysis.

Farmers and value chain actors actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed relative merits of trialled improved varieties.

### 2.4 Investigate opportunities to communicate information on pest and disease management to farmers through value-chain actors

Initial demand, incentives and potential entry points evaluated as part of value chain analysis. This is likely to become an important part of activities in Sikka given that cassava mealybug was observed during the value-chain assessments and focus groups.

Farmers, value chain actors and government staff actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed pest and disease control methods.

## 2.6 Evaluate opportunities for value-chain actors to promote adoption of appropriate fertiliser regimes

Initial demand, incentives and potential entry points evaluated as part of value chain analysis.

Farmers and value chain actors actively participated in harvest field days in Sikka, North Sumatra, Dak Lak and Son La and discussed relative merits of improved soil fertility management.

# Objective 3: Develop policy recommendation and facilitate learning alliances for the development of a sustainable cassava industry and improvement in rural livelihoods through improved agribusiness arrangements

No.	Activity	Outputs/ milestones	Due date of output/ milestone	Applications of outputs	Comments
3.1	Review government planning and policy procedures	Working paper on local planning and policy constraints	July 2017	Entry points for continued government support	Preliminary discussion on local government policies and priorities undertaken
3.2	Facilitate stakeholder dialogues in each case-study region to identify incentives, problems, and solutions	Dialogues conducted and reported	Throughout project	Locally adapted solutions to production and processing problems Further testing of agribusiness models, including incentives and constraints	First stakeholder dialogs conducted at inception meetings in Son La, Dak Lak. Stakeholder engagement at harvest of multiplication trials in North Sumatra

#### 3.1 Review of national policies

**Vietnam:** Preliminary discussion on local government policies and priorities during the inception meetings in each site. DARD and the People's committee outlined the views and perception on cassava and priorities for the project. There are limited direct policies at the national level, besides some unenforceable targets – including the national level of cassava and minimum prices. A more formal review of policies and priorities and the different scales is still to be complete in 2017.

**Indonesia:** Similar to Vietnam there are few national level policies around cassava and the crop is largely impacted by policies in the substitute commodities. In Sikka there are some local policies around diet diversification. In North Sumatra there is limited government support and regulation of the cassava sector. Various policies impact he processing and logistics in both countries. A more formal review of policies and priorities and the different scales is still to be complete in 2017.

#### 3.2 Facilitate stakeholder dialogues in each case-study region

**Vietnam**: First stakeholder dialogs conducted at inception meetings in Son La, Dak Lak. This include participation by researchers (including those outside the project), DARD officials, MOST, Provincial Peoples Council, and cassava processing industry. By involving government and private sector actors in the value-chain training and assessments, these actors also got to interact with groups of men and women farmers in the target districts. Farmers, government and private sector value chain actors participated in the harvest and assessment of the 2017 trials in both Son La and Dak Lak. The project also presented papers and posters at the North-West Vietnam Research Symposium in Hanoi in November 2017. **Indonesia**: Strong stakeholder relations were formed in North Sumatra during the first visit in January. The project team travelled with the Director of Bumi Sari and one of the key cassava trading-agents. Meetings were held at Bumi Sari with the largest agents who coordinate with traders to supply the factory. The group (research +private sector) also met with BPTP to discuss the project and their priorities and capacity. Stakeholder were also invited to the harvest of multiplication trials in North Sumatra and the harvest of variety, intercrop and fertilizer trials in North Sumatra in September 2017.

Team members continue to liaise with both public and private sector actors – however this will increase as more results become available. In Sikka, there has been strong engagement with the local DINAS who manages the trials with the support from an enthusiastic private sector actor. There has also been engagement with the Nusa Tenggara Association (NTA), a NGO that may have interest in scaling innovations into the areas in works. There have also been cross-site visits of private sector actors from Sikka to North Sumatra. The project supported and present papers at an International Workshop of root and Tuber crops in October 2017 in Malang.

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

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-improveprofitability-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