



Summary and Achievements of the Technical Assistance for providing

Value Chain Development Support Services and Service Delivery
Capacity of Local Governments of Papua New Guinea's Highlands
Agriculture Sector

This is the third and last article to be produced under the Service Contract implemented by SOFRECO under Component 3 of the RED2 programme. Although each article introduces a specific topic they are all interdependent and aim at showing the project's progress and impact and constraints met over its period of implementation.

The first article introduced the challenges of Papua New Guinea's Highlands agriculture sector, the second detailed the approach proposed by the project and the third supplements the first two articles and gives a comprehensive documentation of the achievements of the technical assistance provided under Component 3 of the RED2 programme.

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ABBREVIATIONS

CBO Community Based Organization

DAL Department Agriculture and Livestock

DDA District Development Authorities

DNPM Department of National Planning and Monitoring

DPLGA Department of Provincial and Local Government Affairs

FPDA Fresh Produce Development Agency

FRC Farmer Resources Centre

LLG Local Level Government

NARI National Agriculture Research Institute

NGO Non-Governmental Organisation

OCS Office of Cooperative Societies

RED Rural Economic Development Programme

SOFRECO Société Française de Réalisation, d'Études et de Conseil

(French Company for Realisation, Studies and Consulting)

SWOT Strengthens, Weaknesses, Opportunities and Threats

1 CONTEXT

1.1 Activities contribution

As explained in figure 1 (see below), the RED2 is an integrated response attempting to address main problem areas identified under RED1, which were:

- Unproductive agriculture value chains and a restricted market access; and
- Weak governance in the agricultural sector.

These two challenges are the result of a lack of local capacities at local level, i.e. at the farmers' and local authorities' level. In order to improve the livelihoods of the people living in rural areas of Papua New Guinea, the project had to ensure the establishment of effective value chain development support services and service delivery capacity of local government in the Highland Region. For this specific objective, two results were expected:

- Result 1: Farmers, farmers' associations and rural communities have access to appropriate information and training tailored to their needs through Farmers' Resource Centers;
- Result 2: Farmers and local authorities are benefiting from an improved capacity in the agro-rural sector.

For each of these two results, two activities were scheduled:

- Value chain development support services and improvement of service delivery capacity of local government in the Highlands Region through the provision of technical support to farmers, farmers' organizations, rural communities, and the provision of training of trainers and guidance to qualified trainers. Analysis of farmers' feedback under the form of "request for support" from rural communities and farmers organizations; Training of Trainers; Qualified trainers to be recruited for "follow up on-the-job reinforcement and guidance" to targeted communities.
- Building the capacity of the Department of Provincial and Local Government Affairs (DPLGA) to develop appropriate analysis and policy responses to local level development. Focus on support governance initiatives with the aim to facilitate the link between local administration (districts, provinces) and rural communities in terms of rural economic development funding.

Figure 1: Barriers and consequences

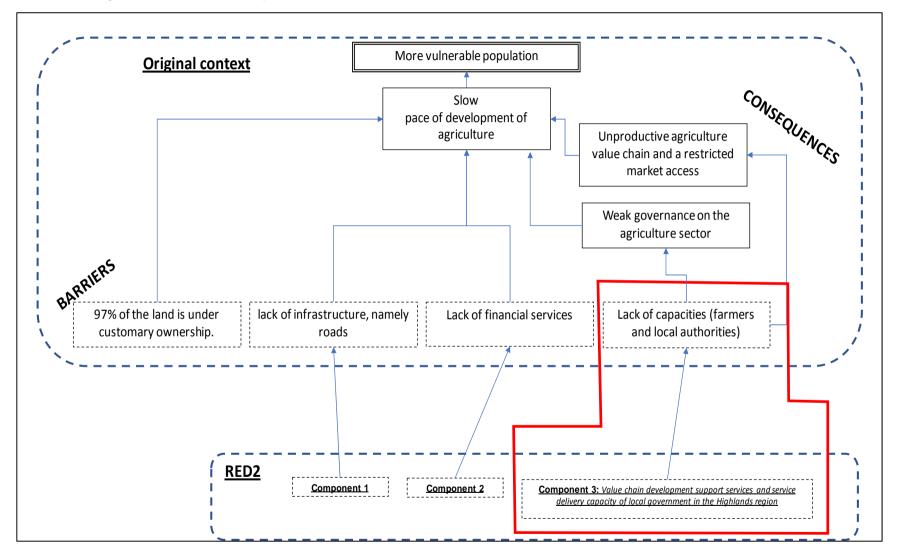


Figure 2 shows the vertical logic between the activities implemented and the outcomes.

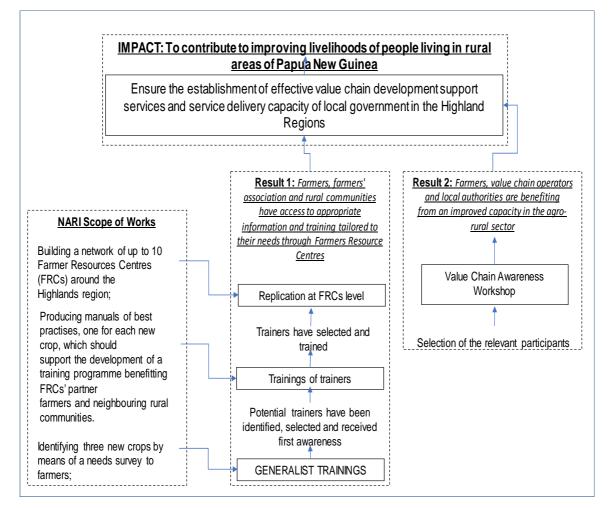
In order to ensure a sustainable support at the FRCs level, the selection of trainers was crucial. The Generalist training targeted two different goals: The selection of relevant potential trainers, the identification of the most relevant topics, as well as the identification of their level.

Following this first step, the team was able to select potential but relevant trainers in a local pool of people supposed to be based near the FRCs. With the supposed support of NARI, the team had then delivered a Training of Trainers in order to (i) select the best trainers and (ii) provide trainings and technical capacities (Value Chain, Farm Management and Agribusiness).

Finally, the team accompanied the new qualified trainers during the replication at the FRC level where NARI was supposed to build them.

For the result 2, on the top of the workshops, the crucial step was to select, with the support from DPLGA, the relevant and local decision makers (DDAs, LLGs and DPLGA) in order to strength capacities in a relevant and sustainable way.

Figure 2: The activities contribution



These activities were implemented to create the two expected results facing the Barriers (lack of local capacities) and so ensuring the establishment of effective value chain development support services and service delivery capacity of local government in the Highland Regions.

1.2 The Cascading Approach

As explained above, two linked objectives were targeted:

- Reinforce the rural population's agricultural skills and business capacities through the implementation of training activities;
- Reinforce the agro-rural knowledge of target beneficiaries and DDAs, LLGs and DPLGA.

To meet the first objectives, a specific approach has been developed with 3 different phases:

- The generalist phase;
- The training inducement phase; and
- The replication phases.

The GENERALIST training was the first step of a skills development orientated cycle of trainings to be provided under Component 3 service contract of the Rural Economic Development Program, phase II. The remaining 2 stages of the delivery cycle comprehend the Trainers Inducement Training and Training Replication sessions at the Farmers' Resources Centres.

The GENERALIST trainings aimed at introducing market economy concepts (individual production management versus market-oriented production management) and clarified relevant marketing concepts: Market segmentation, market (what is a market) and market place, market positioning and impact in business development. It brought to attention the strategic role of distribution / value chains (concept and development) as well as viable agribusiness models: cooperatives, associations, clusters, and marketing groups. Overall, in a pilot case concept, it represented a sequential integrated approach to three subject matters: Market-oriented farming management, value chain development and realistic agribusiness models which are relevant for the development of the agriculture sector in the Highlands of Papua New Guinea.

These GENERALIST trainings had two main objectives:

- To raise awareness and a common understanding of such subject matters among critical different actors to progressively engage them in a process of change which should create an enabling environment for the agriculture sector of the Highlands. For this reason, the GENERALIST trainings did not foresee any segmentation among selected Trainees;
- The identification of potential Trainers for the second step of the cycle: The training inducement phase.

In order to capture a maximum of potential trainers four identical generalist training rounds have taken place in November and December 2017 in two different locations: Mount Hagen and Goroka. The GENERALIST training benefitted 190 trainees from all provinces in the Highlands region and introduced them to market economy concepts and notions in addition to supplying concrete knowledge and information in the three key subjects of the service contract: Value Chain Development; Farming Management as well as Agro-business development. These same 190 trainees were also targeted as a likely source of potential trainers to attend the training inducement stage, a long list of almost 100 possible nominees was secured. After a profiling process a total of 86 trainees were

nominated to attend the two (2) inducement trainings foreseen in the activity plan of the service contract.

The TRAINING INDUCEMENT phase engaged participants in a comprehensive, multi-day distributive learning process, formally called Training of Trainers (ToT) that built the knowledge and skills required to effectively train trainers to deliver a training (replication phase) in a value chain approach and all concepts regarding this system in the FRCs. The ToT also involved a specific module on Financial Education delivered in collaboration with Component 2 of RED2 programme and an overview presentation on Cooperative Society provided by the Office of Cooperative Societies of Papua New Guinea. The Inducement Phase included two identical rounds of ToTs which took place in March 2018 in two different locations: Mount Hagen and Goroka.

As a result, the ultimate objective of this phase was to secure the development of a portfolio of technically reliable and competent trainers, ideally from each one of the FRCs established by NARI and to introduce new economic and business notions to progressively trigger a process of change in the fresh produce sub-sector of the Highlands. These objectives were achieved sequentially. After a qualitative selection process, a total of 56 trainees were qualified as Trainers and only 23 were selected as Trainers for the Replication Phase.

Six REPLICATION trainings were organized in April 2018 and involved the participation of 168 farmers and 22 trainers, the three experts and one representative of the Cooperative Societies of Papua New Guinea. The expected results of this phase were to validate (and fine tune when needed) the training given by the trainers in value chain development, as well as, the related topics farming management, agri-business and financial education target to create awareness of the concepts expressed above and to motivate the participants to seek supplementary training in the topics that they feel are more important for the development of their business.

Figure 3: The approach (Objective 1)

GENERALIST PHASE for introduction, awareness & common strategic understanding of all 3 subjects matters from a market economy perspective and selection of potential Trainers

TRAINING INDUCEMENT PHASE to acquire training skills and curricula development competencies for delivery of a business development services to farmers.

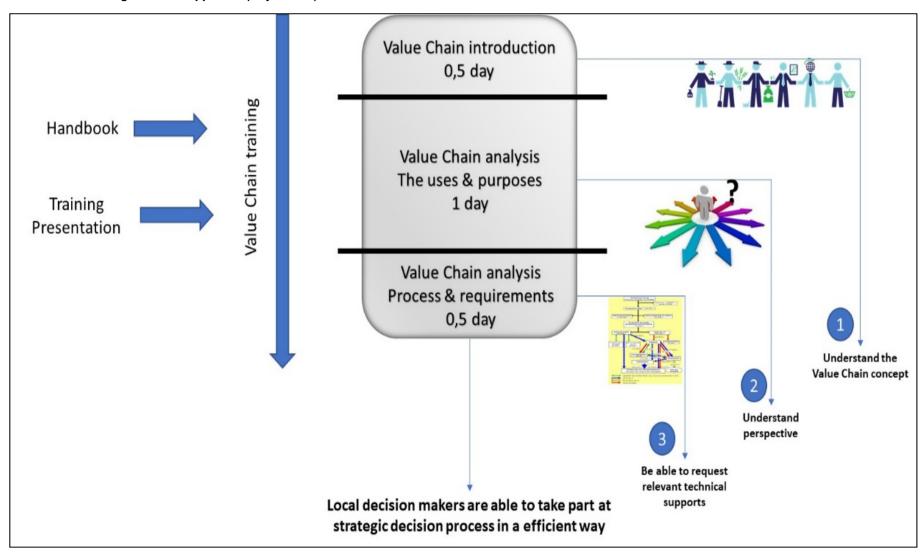
REPLICATION PHASE for trainers to exercise acquired knowhow by means of tutoring and coaching

1.3 The Value Chain Awareness Approach

To meet the second objectives (Reinforce the agro-rural knowledge of target beneficiaries and DDAs, LLGs and DPLGA), experts developed a VALUE CHAIN training. This training aimed at introducing the Value Chain analysis concept to make local decision makers more comfortable in terms of local policy making. The two VALUE CHAIN Training Workshops had three main objectives:

- To raise awareness and a common understanding of Value Chain matters among critical different actors;
- To make participants comfortable concerning the potential uses and purpose of the Value Chain Analysis;
- To raise awareness about the capacities' requirements and know-how on Value Chain analysis;
- To capture a maximum of potential trainers two identical Value Chain Training Workshops took place in two different locations: Mount Hagen and Goroka.

Figure 4: The approach (Objective 2)



2 ORGANIZATION OF THE ACTIVITIES

2.1 The Generalist Training

The Generalist Training was the first step of a skills development orientated cycle of trainings to be provided under the Component 3 service contract of the Rural Economic Development Program, (phase II). The remaining 2 stages of the delivery cycle included the Trainers' Inducement Training (or Training of Trainers, ToT) and Training Replication Sessions at the Farmers Resources Centres (FRCs).

The Generalist Trainings aimed at introducing market economy concepts (individual production management versus market-oriented production management) and clarified relevant marketing concepts: market segmentation, what is a market and market place, market positioning and impact in business development. It brought to attention of the participants the strategic role of distribution / value chains (concept and development) as well as viable agribusiness models: Cooperatives, associations, clusters, marketing groups. Overall, in a pilot case concept, it represented a sequential integrated approach to three subject matters: Market-oriented farming management, value chain development and realistic agribusiness models which are relevant for the development of the agriculture sector in the Highlands.

This Generalist trainings had two main objectives:

- To raise, awareness and a common understanding of such subject matters among critical different actors to progressively engage them in a process of change which should create an enabling environment for the development of the agriculture sector of the Highlands. For this reason, the Generalist Trainings did not foresee any segmentation among selected trainees;
- The identification of potential trainers for the second step of the cycle: the training inducement phase.

Supervision of preparation (incl. materials)

During the two first weeks of November 2017, the short-term expert met focal

points, potential participants and benefited from the experience of the two Key Experts. The short-term Experts designed the Generalist Trainings in order to provide awareness of Market Economy and how a performing **Value Chain** would work with a focus on **Agribusiness** and **Farming Management**. Different concepts were included in the trainings to achieve this global objective:

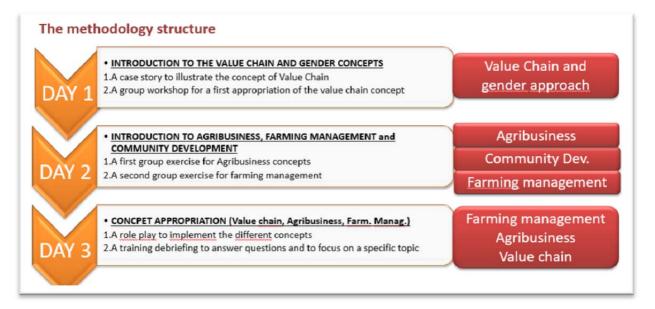
- Market Economy;
- Market Demand;
- Value chain and key actors;
- Environmental Sustainability;

- Market Segmentation;
- Agribusiness model;
- Small and Medium Entrepreneurs;
- Decision taking;
- Economic viability;
- Business planning;
- Gender approach;
- Community development.

Each day was designed to focus on a specific concept (Value Chain, Agribusiness and Farming Management). Each concept was illustrated through case study / workshop / exercises / role play.

At the end of each illustration, a specific debriefing took place in order to answer questions and/or develop specific aspects.

Figure 5: The Generalist training approach



Delivery

To create a maximum of impact four identical Generalist Training rounds took place in two different locations: Mount Hagen and Goroka.

190 trainees participated to the Generalist Trainings. More than 25% of the trainees were women. With the support of the different focal points, the Key Experts had selected 101 trainees from public entities administration & extension services such as DAL, NARI, FPDA, PDPI. 69 came from private sector operators and 20 were private providers of extension and advisory support services.

Following the Curricula, the four Generalist Trainings were delivered in time. Except for the finance sector, all the targeted groups were represented. 26% of the trainees were women which were more than expected.

Table 1: The Generalist trainings outputs

| RESULTS AGAINST OBJECTIVES OF THE TRAINING | | | | | | |
|---|---|--|--|--|--|--|
| Target groups distribution | | | | | | |
| Public entities administration & extension services such as DAL, NARI, FPDA, PDPI | 99 Participants | | | | | |
| Private providers of extension and advisory support services | 23 | | | | | |
| Savings and Loans Societies; private commercial banks; micro finance banks | 0 (no response) | | | | | |
| Private sector operators (intermediate traders/buyers and main buyers/storage and processing facilities): Commodity organisations, Farmers' associations and Cooperatives and Women groups, FRC | | | | | | |
| Participants' attendance | | | | | | |
| Senior Managers and technical staff involved with infrastructure development, public health and food safety | 27 Participants | | | | | |
| Senior Managers and technical staff involved with economic development, planning and environment | 10 Participants | | | | | |
| Senior Managers and extension Advisors | 52 Participants | | | | | |
| Senior / middle level Managers involved w/ SME and/or rural credits and micro-finance | 6 Participants | | | | | |
| Owners of private businesses, senior / middle level business Managers related to procurement / marketing activities and Leaders of rural economic development organizations | | | | | | |
| Education and professional training | 22 Participants | | | | | |
| 10% to 20% participation of women | 26% | | | | | |
| % of Participants who understood the conveyed | concepts | | | | | |
| Market Segmentation | 81% | | | | | |
| Economic viability | 78% | | | | | |
| Business planning | 91% | | | | | |
| Small and Medium Entrepreneurs | 87% | | | | | |
| Market Demand | 94% | | | | | |
| Environmental Sustainability | 79% | | | | | |
| Value chain and key actors | 98% | | | | | |
| Market Economy | 87% | | | | | |
| Agribusiness model | 87% | | | | | |
| Gender approach | 95% | | | | | |
| Potential trainers identified (according to set profiles, their participation during the training and their responses to the profiling questionnaires). | 83 potential trainers have been identified. | | | | | |
| Expressed satisfaction rate | | | | | | |
| Theory with case story & academic courses (value chain, agribusiness, | 97,25% satisfied | | | | | |
| farming management, gender approach and community development) | 31,23/0 Sausileu | | | | | |
| Format presentation (PowerPoint and booklet) | 96% satisfied | | | | | |
| Exercises for agribusiness farming management, gender approach and community development (days 1 & 2) | 97,25% satisfied | | | | | |
| Exercise for Gender approach and community development | 93,67% satisfied | | | | | |
| Role game for value chain vision, decision making, business planning (day 3) | 98,75% satisfied | | | | | |
| General appreciation of the Generalist Training. | 97,5%satisfied | | | | | |

Any specific feedback from participants (collated)

Different feedbacks from the participants were collected after the trainings:

- The booklet should be given at the beginning of the training session;
- Media could have been invited to make people aware about this training and about its participants who could then be interviewed;
- The participants wanted to go to their communities and share the information as soon as possible;
- Participant put emphasis on their lack of knowledge about business activities and on the importance to develop specific trainings about it;
- The training should be longer and deployed directly in the FRCs;
- The participants have expressed a regret not having heard about these concepts during the trainings they had attended before.

2.2 The Training of Trainers

Selection and mobilization of participants

Despite the portfolio of potential trainers coming from the Generalist Trainings, it was not guaranteed that all FRCs' association would be in a position to retain trainers of in their own network. To should be noted that, during or after the trainings, most of the participants mentioned that their knowledge of the concepts discussed in the trainings was non-existent or very limited.

According to comments from the Generalist training questionnaires, most of the trainees would have preferred an extended period of training to understand and consolidate skills on some specific subjects such as value chain development and entrepreneurship. The majority of the trainees had low pedagogic and technical profiles which made it hard to pre-select potential trainers to attend the ToT rounds. Overall, their technical competences in those key subject matters and their experience in training were quite limited. Nevertheless, as shown below, thanks to the final questionnaires of the Generalist Trainings, there are potential trainers from all provinces and eventually FRCs' neighbouring districts:

- Between 1 and 2 trainees from Gumine's FRC (including close districts);
- Between 2 and 6 from Ifiyufa (including close districts);
- Between 3 and 4 from lalibu (including close districts);
- Between 1 and 11 from Laiagam (including close districts);
- Between 3 and 8 from Minj (including close districts);
- Between 1 and 2 from Okapa (including close districts);
- Between 1 and 3 from Tambul (including close districts);
- Between 1 and 3 from Tari (including close districts);
- Between 2 and 9 from Mull Bayer's (including close districts);
- Between 1 and 5 from Goglme (including close districts).

Supervision of preparation (incl. materials)

The Trainings of Trainers (ToT) aim to build local capacities in order to carry out replication targeting farmers at the FRCs' level. The ToT was designed to provide in 6 days the basic competences and knowledge on Value Chain development and Training skills through five modules and several practical activities. The modules provided were:

- Mod. 0 How to become trainer;
- Mod. 1 Value Chain Development;
- Mod. 2 Farming Management;
- Mod. 3 Agribusiness;
- Mod. 4 Financial Education.

The Financial education module was designed and provided by the Component 2 of RED 2 Programme. All the practical activities have been designed in order to consolidate competences and training capacities.

Delivery or mentoring: Outline of the sessions and refer to curriculum

Following the ToT curricula, the two trainings were delivered following the proposed curricula. However, during the day 5 and 6, Experts decided to split trainees in two groups increasing *de facto* the time simulation for each trainee. The huge majority of the trainees were active during these two weeks and most of them were seriously involved in the replication material design, allowing an efficient ownership of technical matters. Only 8 trainees were not comfortable during the replication simulation, weaknesses in English speaking or extreme shyness were issues for them. Despite heavy and condense training activities, participants expressed a high satisfaction level for these two ToT sessions; the fact that trainees were accommodated where trainings took place also facilitated the trainings and the networking between the participants.

The ToT involved also a specific module on Financial Education delivered in collaboration with Component 2 of RED2 programme and an overview presentation on Cooperative Society provided by Office of Cooperative Societies of PNG.

Attendance, results, evaluation summary (can use table format)

The Training of Trainers sessions took place in Mount Hagen (12-17 of March 2018) and in Goroka (19-24 of March 2018).

In Mount Hagen, 44 trainees (36% of women) attended the trainings. 15 form Enga, 3 from Hella, 5 from Southern Highland Province and 21 from Western Highlands Province. Target groups represented: 47% from Public Administration (including Ext. services), 33% ffrom FRC association members and Farmers from off target area, 10% from the Private Sector, and 10% from TVET.

In Goroka 42 trainees (26% of women) attended the trainings. 19 form Eastern Highland Province, 16 from Jiwaka and 7 from Simbu. Target groups represented: 45% from Public Administration (including Ext. services), 35% from FRC association members and Farmers from off target area, 4% from the Private Sector, and 16% from TVET.

From these two trainings, 56 participants passed the final questionnaires, including a technical writing assessment and an oral presentation.

15 qualified trainers (27% of the qualified trainers) are women.

Table 2: Number of qualified trainers per province

| Province | No. of trainers |
|----------|-----------------|
| ENGA | 7 |
| SHP | 2 |
| WHP | 17 |
| HELLA | 2 |
| EHP | 15 |
| JIWAKA | 8 |
| SIMBU | 5 |
| TOTAL | 56 |

Table 3: Number of qualified trainers per organization

| FRC | Qualified trainers |
|---------|---|
| Laiagam | 1 from the FRC, 3 from DAL, 2 from TVET, 1 from RDO / LLG |
| Kwinkya | 3 from the FRC, 3 from DAL, 5 from RDO/LLG, 1 CBO, 1 from TVET |
| Ialibu | 2 from the FRC |
| Tambul | 1 from RDO, 1 from TVET, 2 from NARI, |
| Minj | 2 from the FRC, 2 from PA, 2 from DDA, 2 from DAL, 1 from private sector |
| Gumine | 2 from the FRC |
| Goglme | 1 from the FRC, 1 from PA |
| Okapa | 2 from the FRC, 1 from private sector, 1 from NARI |
| Ifiyufa | 1 from PA, 1 from DPI/DRDO, 1 from private sector, 3 from DAL, 1 from DDA, 3 from TVET, 1 from RDO. |
| Tari | 2 from the FRC |
| TOTAL | 56 |

Table 4: Number of organizers per FRC

| FRC | Organizers per FRC |
|---------|--------------------|
| Laiagam | 1 |
| Kwinkya | 2 |
| lalibu | 1 |
| Tambul | 1 |
| Minj | 2 |
| Gumine | 1 |
| Goglme | 1 |
| Okapa | 1 |
| Ifiyufa | 1 |
| TOTAL | 11 |

2.3 The Replication

Selection and mobilization of participants

The replication trainees were selected by the organisers of the replication trainings according to the indications and instructions given during the ToT. The profiling of the participants followed the rules below:

Table 5: The selection and the mobilization of the replications' participants

| Target groups | Criteria for Participants | Profiles |
|---|--|--|
| NSA, Churches, Community Based Organisations (CBOs) | Initial priority to FRCs' neighbouring target groups w/ possible expansion to others | Grade 10 (min.) and good control of English and "tokpisin" |
| | Active senior and middle level members of the organisations indicated as target groups | Direct involvement with rural economic planning activities |
| | Segmented trainings approach: specific subject matter for specific target group | Current experience in farming and business activities |
| Wholesalers, Commodity | | |
| organisations, Farmers' associations and Cooperatives and Women groups linked to farming and economic activities. | Availability to attend, at least, one 1-day session | Based in / linked to FRCs' neighbouring communities |
| | Well introduced in beneficiary communities | |
| | 20% to 33% participation of women | |

The replication trainings were designed in order to verify the training skill of the selected trainers and to receive feedback from trainees. For this reason, it was crucial to test the replication training with English speaking trainees in order to allow the experts to provide an assessment of the activity.

In order to facilitate the selection process, the experts provided to the Replication Trainings' organisers a strategic document, including some tips on training organisation and on how to ensure the profiling and selection through an intuitive survey form.

Furthermore, the calendar of the replications was designed considering the need of time for the organisation and in order to facilitate the logistics. For this purpose, the first three replications were organised by the FRC who attended the ToT in Mt. Hagen (12-17 of March 2018), followed by the FRC who participated to the ToT in Goroka (19-24 of March 2018).

On average 10 days before each of the 6 Replication training activities the lists of participants were provided by the organisers to the experts.

Supervision of preparation (incl. materials)

The supervision on the Replication training consisted in:

- Checking the Replication training venues' conditions;
- Meeting with some Trainers on methodology and training content;
- Delivering of training materials.

During the period of February – April 2018, the FRCs were visited in order to verify condition and suitability of replication trainings' venue. Details regarding these visits can be found in table 6.

Table 6: The FRCs' conditions as Replications preparation stage¹

| Date | FRC | Condition | Notes |
|--------|-----------------|-------------------------|--|
| 06 Feb | Minj (Jiwaka) | Not Ready | On-going works |
| 09 Feb | Kwinkya (WHP) | Not Ready | Almost finished |
| 15 Feb | Gumine (Chimbu) | Road interrupted | Not reachable |
| 16 Feb | Laiagam (Enga) | Not Ready | On-going works |
| 19 Feb | Tambul (WHP) | Ready but not available | Finished but it is too small to seat a minimum estimated number of 10 participants |
| 07 Mar | lalibu (SHP) | Not Ready | Almost finished but with plumber works on going |
| 07 Mar | Ifiyufa (EHP) | Ready | Works of refurbishment and renovation finished |
| 05 Apr | Kwinkya (WHP) | Ready | Still missing some equipment from NARI (chairs and tables) |
| 05 Apr | Minj (Jiwaka) | Ready | Still missing some equipment from NARI (chairs, tables, whiteboard) |

Eventually, at the planning stage only the FRCs of Kwinkya (Rep 2), Minj (Rep 4) and Ifiyufa (Rep 6) were confirmed as suitable venues to host the replication trainings. In order to conduct the replications sessions for the others FRCs, the replication trainings' venues were located in private conference rooms.

Unfortunately, it was not possible to meet all the trainers before the replication, however most of the trainers tried to contact the experts by telephone or mail in order to get some tips regarding the training organisation, pedagogical advice and some confirmation regarding the use of training materials and tools.

The trainers of Replication 2 and 3 required a specific meeting with the experts in order to verify the reliability of their presentations. Specific advice were sought to validate concepts and methodology.

In general, the training materials endorsed by the experts were:

- Flipcharts;
- Whiteboard;
- Markers;
- Exercises;
- Role Games.

¹ The Goglme FRC was not visited by the short-term experts.

Even though the trainers were free to use and organize the training according to their preference, the experts have always recommended to not use PowerPoint as a teaching tool. PowerPoint can be a highly effective tool to aid learning, but if not used carefully, it may disengage trainees and prevent effective learning. The issues and risks are several:

- The risk to overfill the slide of contents:
- The risk to have a reading session instead of a real training;
- The risk of lack of energy power;
- The risk to have a training "Trainer centered" and a lack of trainees' interaction and activity.

For this purpose, flipcharts and markers were delivered to the trainers before each Replication Training.

The trainees received a kit composed by a block note and a pen. The Replication Trainings were also considered as a test in preparation of the learning contents and support. For this purpose, booklets was delivered to the farmers during the training, however, according to the inputs received during the replication trainings, the experts finalised and fine-tuned a final booklet which has been translated in Pidgin and distributed to the FRCs.

Delivery or tutoring/mentoring: outline of the sessions and refer to curriculum

Regarding project time issue, the technical assistance team had to reduce the number of replication trainings. In order to maintain a general spreading, it had been decided to group some FRCs within only one replication. Concerning to overtake this constrain and to group the FRCs in an efficient way, the selected criteria were the security and the transport duration. So, for security reason, Tambul and Ialibu was grouped in only one replication (Rep 3) in Mount Hagen; for transport duration, Gulmine et Golgme was grouped in only one Replication (Rep 5) in Kundiawa and Okapa farmers were grouped with the Ifiyufa FRC during the Rep 6. The final calendar of the replication is as in table 8 and the replication has followed the expected curricula.

Table 7: The replications calendar

| Date | Day | FRC | Province | Venue | Activities |
|--------|-----|---------------|----------|------------|-------------|
| 09-apr | Mon | Laiagam | ENGA | Wabag | Rep 1 day 1 |
| 10-apr | Tue | Laiagam | ENGA | Wabag | Rep 1 day 2 |
| 12-apr | Thu | Kwinkya | WHP | Mull Bayer | Rep 2 day 1 |
| 13-apr | Fri | Kwinkya | WHP | Mull Bayer | Rep 2 day 2 |
| 16-apr | Mon | lalibu/Tambul | SHP | Mt.Hagen | Rep 3 day 1 |
| 17-apr | Tue | lalibu/Tambul | SHP | Mt.Hagen | Rep 3 day 2 |
| 19-apr | Thu | Minji | JIWAKA | Minji | Rep 4 day 1 |
| 20-apr | Fri | Minji | JIWAKA | Minji | Rep 4 day 2 |
| 23-apr | Mon | Gumine/Goglme | SIMBU | Kundiawa | Rep 5 day 1 |
| 24-apr | Tue | Gumine/Goglme | SIMBU | Kundiawa | Rep 5 day 2 |
| 26-apr | Thu | Okapa/Ifiyufa | EHP | Ifiyufa | Rep 6 day 1 |
| 27-apr | Fri | Okapa/Ifiyufa | EHP | Ifiyufa | Rep 6 day 2 |

Table 8: Replication Sessions participation

| Replication Training | No. of participants | Male | Female |
|----------------------|---------------------|-------|--------|
| Rep 1 | 23 | 56.5% | 43.5% |
| Rep 2 | 40 | 56.4% | 43.6% |
| Rep 3 | 32 | 67.7% | 32.3% |
| Rep 4 | 31 | 46.4% | 53.6% |
| Rep 5 | 20 | 65.0% | 35.0% |
| Rep 6 | 22 | 68.2% | 31.8% |
| TOTAL | 168 | 59.5% | 40.5% |

Table 9: Participants' appreciation of the Replication Sessions

| Replication | | Accuracy on learning objectives description | | Achievemer | | ement of obj | iectives |
|-------------|---------|---|----------|------------|---------|--------------|----------|
| Training | Agree | Neutral | Disagree | Agree | Neutral | Disagree | |
| Rep 1 | 91.30% | 8.70% | - | 82.61% | 17.39% | - | |
| Rep 2 | 100.00% | - | - | 94.90% | 5.10% | - | |
| Rep 3 | 88.10% | 11.90% | - | 61.30% | 38.70% | - | |
| Rep 4 | 92.90% | 7.10% | - | 75.00% | 25.00% | - | |
| Rep 5 | 100.00% | - | - | 85.00% | 15.00% | - | |
| Rep 6 | 77.30% | 22.70% | - | 72.70% | 22.70% | 4.55% | |
| TOTAL | 90.80% | 9.20% | - | 79.10% | 20.20% | 0.61% | |

Table 10: Explanation quality during the Replication Sessions

| Replication | Accuracy of the explanations | | |
|-------------|------------------------------|---------|----------|
| Training | Agree | Neutral | Disagree |
| Rep 1 | 100.0% | 0.0% | 0.0% |
| Rep 2 | 94.9% | 5.1% | 0.0% |
| Rep 3 | 71.0% | 25.8% | 3.2% |
| Rep 4 | 96.4% | 3.6% | 0.0% |
| Rep 5 | 75.0% | 25.0% | 0.0% |
| Rep 6 | 77.3% | 22.7% | 0.0% |
| TOTAL | 86.5% | 12.9% | 0.6% |

Table 11: The interaction during the Replications

| Replication | Participation and interaction arise | | |
|-------------|-------------------------------------|---------|----------|
| Training | Agree | Neutral | Disagree |
| Rep 1 | 91.3% | 8.7% | 0.0% |
| Rep 2 | 97.4% | 0.0% | 2.6% |
| Rep 3 | 77.4% | 19.4% | 3.2% |
| Rep 4 | 78.6% | 21.4% | 0.0% |

| Replication | Participation and interaction arise | | |
|-------------|-------------------------------------|---------|----------|
| Training | Agree | Neutral | Disagree |
| Rep 5 | 95.0% | 5.0% | 0.0% |
| Rep 6 | 72.7% | 27.3% | 0.0% |
| TOTAL | 85.9% | 12.9% | 1.2% |

Table 12: The relevance of the replications' contents

| Replication | Relevance of the training on the work activity | | |
|-------------|--|---------|----------|
| Training | Agree | Neutral | Disagree |
| Rep 1 | 95.7% | 4.3% | 0.0% |
| Rep 2 | 92.3% | 5.1% | 2.6% |
| Rep 3 | 64.5% | 32.3% | 3.2% |
| Rep 4 | 78.6% | 21.4% | 0.0% |
| Rep 5 | 95.0% | 5.0% | 0.0% |
| Rep 6 | 86.4% | 13.6% | 0.0% |
| TOTAL | 84.7% | 14.1% | 1.2% |

Table 13: The topics interests of participants

| Subjects | |
|-------------------------|--------|
| Value Chain | 9.8% |
| Market Demand | 9.6% |
| Pest Management | 8.2% |
| Post-Harvest Management | 7.2% |
| How to start a business | 15.3% |
| Business model | 8.2% |
| Bookkeeping | 7.0% |
| Business Management | 14.3% |
| Business planning | 5.1% |
| Savings | 5.5% |
| Budgeting | 6.1% |
| NA | 3.7% |
| TOTAL | 100.0% |

Any specific feedback from participants (collated)

- 57% of the participants were willing to change and improve farming activities after the training;
- According to feedback from the participants, around 50% considered the time allocated as too short. This percentage shows the need to provide extra time;
- 81% of the trainees, who attended the replication trainings in the FRCs, considered the venue as adequate.

2.4 The Value Chain Awareness Workshop

Selection and mobilization of participants

The mobilization of the participants was done through the usual Focal Points. Since DPLGA officers were a target of the capacity building activities, the long term (LT) expert team requested them to assist with the selection of the participants. Unfortunately, because of internal issues, DPLGA was not able to provide a list in time. Consequently, the LT expert team had to rely on the usual focal points in the provinces.

The selection aimed at identifying at least 42 participants from DNPM, DPLGA, Provincial development committees, PAs & DAs planners, LLGs and Community Development Committees (CDCs). Finally, 46 participants attended the workshop, 20 in Goroka (for the Lower Highlands) and 26 in Mount Hagen (for the Upper highlands).

The selection of participants was based on the following criteria:

- Senior Managers and technical staff involved with economic development, planning and environment. (28 people were selected);
- Senior members of private sector associations;
- Senior Managers and technical staff involved with infrastructure development, public health and food safety. (5 people were selected);
- Senior Managers and technical staff involved with infrastructure development, public health and food safety. (13 people were selected).

The profiles of the persons targeted were:

- University level or as a minimum 5 years' experience in public / private economic development activities;
- Experience / understanding of / competencies in strategic planning in a publicsector environment;
- Influencer in public strategic decision-making at Central, Provincial or District levels.

Thanks to the Focal points, a list of 46 people (only 5 women) was developed:

Table 14: The VC Awareness Workshops: Number of participants per provinces

| Province | Number |
|---------------|--------|
| Enga | 7 |
| WHP | 7 |
| EHP | 4 |
| Hela Province | 6 |
| Jiwaka | 7 |
| SHP | 6 |
| Simbu | 7 |
| POM | 2 |
| Total | 46 |

Table 15: The criteria of the VC awareness workshops participants

| Criteria | Number |
|---|--------|
| Senior Managers and decision-makers involved in economic development activities (SME, industry, trade), works, planning and environment | 28 |
| Senior members of active private sector agro-business associations / projects (e.g.: Chambers of Commerce & Industry, Office of the Cooperative Societies, Rural Service Delivery & Local Governance Project) | 5 |
| University level or a min. of 5 years' experience in public / private economic development activities, Influencer in public strategic decision-making at Central, Provincial or District levels | 13 |

Supervision of preparation (incl. materials)

The Value Chain Awareness Workshops aimed at building local capacities in order to:

- Reinforce the agro-rural knowledge of DDAs, LLGs & DPLGA;
- Enable strategy development for the economic development and mid to long term planning focused on value-chain subjects;
- Facilitate the link between local administration & rural communities, in terms of coordination & cooperation.

In order to achieve these targets a dedicated curriculum was developed and endorsed by the Technical Working Group during its second and last meeting on the 26th of February 2018. The workshop was split in three different modules. The first one (Value Chain concept) aimed at providing a common framework for the participants, "the technical basics". This first module was developed in order to allow participant to position themselves within the Supporting Functions of the Value Chain. Then, a second module had been developed to introduce and discuss the usual strategic actions the Local Decision Makers could take within a Value Chain Development project. Within this module, the intervention of the Office of Cooperative Societies officer was well appreciated and allowed a better understanding of the registration process of the potential cooperatives. Finally, a third and last module had been designed in order to introduce the basics and the requirements of a Value Chain Analysis in order to make them comfortable with the different project design justifications.

Delivery or mentoring: Outline of the sessions

Following the curricula, two trainings were delivered: One in Goroka and one in Mount Hagen. The vast majority of the trainees were very active during these two workshop and most of them were also seriously involved in the exercises. Despite a comprehensive and very busy workshop, participants expressed a high level of satisfaction -even if they would have preferred a longer workshop session. It was an advantage that trainees were accommodated in the same place where the trainings took place.

Attendance, results, evaluation summary

The workshops' sessions took place in Goroka (26-27 of April 2018) and in Mount Hagen (1-2 of May 2018).

In Goroka, 20 participants attended the workshop: 7 from Simbu, 7 from Jiwaka, 4 from EHP and 2 from Moresby (DPLGA and OCS). In Mount Hagen, 26

participants attended the workshop: 7 from WHP, 6 from SHP, 6 from Hela and 7 from Enga.

At the beginning of each of the two workshops, the STE expert asked the participants to do a test. This test was also given at the end of each session in order to assess the knowledge of the participants. The good answers had been multiplied by 4 showing the commitment of the participants during the presentations. 100% of participants considered the workshop as useful in their professional life. The same rating was achieved regarding the relevance of the exercises showing real interest for concrete action. 80% of the participants mentioned that they learned a lot during the Workshops; only 20% indicated that they did not learn a lot. No one considered they did not learn anything. These rating show the relevance of such a Value Chain Awareness Programme in the provinces of the Highlands of PNG.

The rating is equivalent with the workshop presentation with 70% considering the presentation as good, 30% as fair and 0% as poor. These percentages show that the scope and approach selected was relevant for the targeted participants.

People considering the presentation as "fair" usually added comments explaining that the workshop should be longer (at least 2 extra days). These comments show the high level of interest participants have for value chain awareness workshops.

3 OUTPUTS, OUTCOMES & LESSONS LEARNED

3.1 Generalist Training

3.1.1 Outputs

The generalist training, the first level of the training of trainers' process, was conducted between November and December on the basis of four (4) training rounds, two in Mt. Hagen (WHP) and two in Goroka (EHP) and benefitted a total of almost 200 potential trainers from all the 7 provinces in the Highlands region.

The Generalist Training was a positive test to evaluate the possibility to deploy some new concepts far from the general perspective and the different reactions to several training methodologies. Even though the trainees were particularly active during the working group activities, the quality of the trainees' interventions was not always relevant because of a lack of theoretical knowledge and relevant experience.

A total of 86 potential trainers were identified based on their performance and commitment at the Generalist Trainings and feedback provided through the profiling questionnaires. Identified pre-selected trainers came from the following target groups:

- About 40% of potential trainers were from LLGs, NSA, Churches, Community Based Organisations (CBOs), NGO, TVET (teachers/trainers);
- Around 20% were from Private sector operators (intermediate traders/buyers and main buyers/storage and processing facilities);
- About 40% are from public entities administration extension services, such as: DAL, NARI, FPDA and PDPI. Their participation at the ToT and replication sessions very much depended on the agreement of their institutional employers.

The pre-identified trainers covered the 7 provinces and came from organisations / rural communities close to the FRCs. In addition, 27% of these pre-selected candidates were women. The final selection of ToT candidates took place as part of the preparation of the ToT sessions.

200 copies of the Generalist Training Manuals and support documents have also been produced and distributed to all trainees.

3.1.2 Outcomes

Most of the participants (97.5%) were satisfied with the Generalist Trainings (theory and formats such as the PowerPoint presentation and booklet). The trainees were active during the exercises, workshop and role play leading to a deeper concepts appropriation and up to 96% considered they had understood the different concepts discussed during the training.

The Generalist Training provided the basics in Value Chain, Agribusiness, Entrepreneurship and Farming Management. Using this approach, the trainees received sufficient basic knowledge to understand the value of going even further. At the end of the Generalist Training, many people wanted to acquire training skills in order to share their new knowledge with farmers in their areas. The Generalist Training actually generated finally new expectations and motivation.

Even though the trainees were motivated to learn and to share, the trainees' level of education was not very high. This was the biggest constrain for the following phase (inducement training - ToT). The business entrepreneurship experience is almost non-existent. This is a significant challenge regarding all new concepts. Regarding farming experience, most of the participants are involved in farming activities, but the farmers only focus at the production level and the rural development (in early stages) showed a lack of knowledge about most of the steps of a value chain and the market economy perspective. During the Generalist Trainings it was noted that only a few pre-selected trainers demonstrated sufficient understanding of general market economy principles and technical skills. This meant that the ToT had to focus on developing a portfolio of generalist trainers, i.e. one single training curriculum common to all future trainers to ensure a realistic understanding of relevant technical matters, minimum training quality skills as well as reliability of technical teaching skills and transfer of knowledge. This approach also reinforced a common understanding of basic concepts leading to a better and more useful exchange of information and knowledge between key players.

3.1.3 Lessons learned

The Generalist Training approach was correct and effective. In addition it generated new expectations and high level of motivation. Trainees received sufficient relevant and basic knowledge to understand the value and use of market economy concepts and the need of going even further. They received / developed additional training skills in order to share their new knowledge with farmers and how to organise their economic activities to meet the market demand in an effective and viable way.

The training methodology and tools (role plays, team play exercises and concepts related games) used were also well appreciated as the majority of the participants interacted and reacted well and in a very committed way. These interactions, more or less effective according to the participants' capacities, demonstrated a real motivation and interest. However, the quality of their interventions was not always relevant because of a lack of theoretical knowledge and limited experience. Usually, the concepts are first understood. Afterwards they have to be put at work and finally, they can be shared. Here, most of the trainees, and so potential trainers, have very few opportunities to practice the concepts they have learnt. Indeed, most of them are not entrepreneurs or trainers or coaches (cf. the profile table). Even if they understood these concepts during the training, it is likely that many trainees have forgotten many definitions.

This is a crucial point which must be taken into account for the design of the ToT. Even if the future trainers will be able to understand many concepts, they may not be able to use all of them and so to share them with farmers during the replications. It is essential to focus on a few but essential concepts and tools to be sure of an efficient replication.

3.2 ToT

3.2.1 Outputs

Taking the above analysis into consideration, two (2) trainings of trainers (ToT) were delivered in a consistence and sustainable way and it included all the predetermined objectives. There were some constraints in the trainings due to the large groups of participants, but that could have been addressed by grouping the trainees, into different rooms. From the 86 trainees, 56 passed the final test, including a training simulation assessment and received a "trainer qualification". The 30 others received a "certificate of participation". From these 56 new trainers, 15 were women (27%). These trainers have a generalist background in Value Chain, Farming management and Agribusiness. They cannot be considered as experts in a single specific topic.

All the provinces and all the FRCs are covered by these 56 trainers. In addition, 15 trainers are directly linked with 8 FRCs: Laiagam, Kwinkya, Ialibu, Minj, Gumine, Goglme, Okapa and Tari. For Tambul and Ifiyufa FRCs, respectively 4 and 11 trainers live near these FRCs to deliver trainings there.

The 56 trainers have signed a cooperation agreement to be annexed to the MoU signed for the setup of the FRCs

Finally, a Manual for Trainers has been designed in order to support the newly qualified trainers in their different capacity building activities.

3.2.2 Outcomes

Thanks to these qualified trainers, farmers, farmers' associations and rural communities now have access to appropriate information and training tailored to their needs in the FRCs. In order to secure this access at FRC level, the experts have assigned a team for each of the 6 replications. Indeed, a selection of the best trainers has been made for the six replication's sessions. On the top of it, one or two trainees – total 11 – (some of them are also trainers) were selected as organizers for the preparation of the replications. All of them signed a statement to secure their commitment to support the training activities at the FRCs until the end of 2018.

3.2.3 Lessons learned

Even if the trainings were deliverable in a consistent and sustainable way, some constraints of the trainings existed due to the large groups of participants. However, in future this could be addressed by splitting of trainees, as well as, the split of the rooms where the formation had taken place. The different level of educational background could also have been addressed during the first formation (Generalist Training), which created the same mind frame and approach for all participants. For the few trainees, who were not proficient in English, a more efficient trainees' selection could have been done by the focal point thus reducing this challenge.

During the next step (the replication sessions) and with the support of the Experts, the trainers began to put into practise the concepts learned during the ToT. The Experts' presence was required to maintain a learning environment for the trainers and to ensure backing and support in all logistical and technical matters.

Continuous learning is crucial for the sustainability of the future trainings. During the replication process, trainers were asked to identify the subjects according to their preference, the demands from the farmers, and to the observed outcomes by the FRCs in the rural communities.

Finally, the trainers could have received specific "extra-trainings" focusing on these identified subjects. Consequently, they could have become a "reference" with the possibility to work as extension services providers. These specific trainings should be designed in order to strengthen the impacts thus producing an accelerator to the rural community development.

3.3 Replication Trainings

3.3.1 Outputs

The six (6) replication trainings, each of these lasting 2 days, were conducted in six provinces in April 2018 and involved 168 farmers.

The Trainers began to put into practise the concepts learned during the ToT with the coaching and the support of the experts.

In all six replications it was noted that the participants (even if a few were not comfortable with the English language) at the end of the training were aware of the differences of being a subsistence farmer and a commercial farmer and the importance of developing a value chain to support and to start up agricultural business activities.

According to the results of evaluation of the trainees, the trainers were able to:

- Conduct clear and objectives-oriented training activities;
- Stimulate an interactive environment enabling open discussions and promoting the adult learning;
- Select the right topics relevant to the farmers;
- Arise interest in value chains and create a need of extra training;
- The trainees are aware of the importance of the provided subjects and the need to understand/know more.

Most of the participants considered that the training was relevant in their own work and with this support they can improve their farming activities.

The participants also expressed an interest to receive more training. This was an important achievement of the training. This will further empower the participants in by consolidate and increasing their knowledge and skills, as well as creating a demand at the FRC level that can work as a starting point to ensure the sustainability and/or effectiveness.

3.3.2 Outcomes

In some meetings conducted at the Provincial and District level the authorities clearly mentioned the importance of this training and the impact the training will have in the communities. The necessity to engage the government local authorities in the FRCs was briefly discussed including suggestions for new training activities to be prepared.

The relevant subject matters delivered during the replications were collected and the experts produced a booklet which has been translated into Pidgin. The booklets have been distributed to all the trainees in collaboration with the FRCs.

It is expected that the replications will continue with the demand from farmers that will have a new perspective of agriculture (commercial). It is likely that there will be a demand for the trainings and that they will be conducted with a focus on specific topics to enable a better and deep knowledge of subjects and facilitate an easy transfer to practical farming activities.

3.3.3 Lessons learned

- The cascading approach was a good methodology that enabled to achieve the project objectives;
- The awareness of value chains, farming management, agribusiness and financial education concepts were acquired by the majority of the participants;
- The trainees were very interest in receiving more general and specific training opportunities and this can be a window of opportunity to the FRCs to receive recognition as references in the agricultures areas;
- The trainers are able to conduct trainings;
- There will be an impact after the trainings, however it should be strengthen by offering additional training activities on specific topics;
- Continuous learning is crucial for the sustainability of the future trainings. During
 the replication process, trainers have identified the subjects according to their
 preferences, the demands from the farmers, and to the observed outcomes by
 the FRCs in the rural communities:
- It is a significant challenge to develop a team spirit among the farmers. There is
 a lot of mistrust and suspicion among them. In a nutshell the "wantok" system
 remains as major constrain.

3.4 Cascade approach assessment

The project approach aimed at reaching all the FRCs and creates sustainability. It was considered that the best way to achieve this objective was to establish a network of trainers who, after receiving appropriate training, would be able to conduct the trainings. This means that even after the project is finished it would be possible to continue delivering of relevant training activities to the agricultural communities. The phase out was carried out through tutoring the trainers in the replication phase and this also enabled the project to fine tune future trainings.

The farmers understood the marked economy theory and this is a base line to support the set-up of a value chain. They realized that the production must meet the demand and only by this it is possible to have/create a successful business.

The farmers also understood what a value chain is and how it works: The value chain starts from the market demand, the add value at each step of the product, the key actors, the transfer of information and money and the internal and external factors.

With the farming management the farmers understood how to make decisions in the pre-production, production and postharvest stages. For example this means how to mitigate the risks, how to manage them and the proper use of instruments like risk analysis, integrated pest management and gross margin analysis. In addition it has also been important to explain to the farmers the importance of environmental sustainability which is often confused with business sustainability.

The agribusiness training increased the trust among rural communities, as they began understanding the need to team up and develop business models that could enable them to be an active actor in the value chain. Furthermore, the explanation on how to start a business stimulated the entrepreneurship in some farmers and the tools given, like the SWOT analysis and the feasibility studies were considered as very useful tools which can be used in different contexts. Business management and planning was also important as it enabled the farmers to "get in control" of their businesses, for example using the cashbook.

With financial education farmers were convinced of the necessity prepare budgets to get an overview over their income and their expenses in addition to the need for saving up money. They were involved in an exercise like a cashbook that rapidly showed them how to do it.

A remarkable impact of the project was opening a "door" that established a precedent for future commercial agriculture in the Highlands of Papua New Guinea.

3.5 Value Chain Awareness Workshop

3.5.1 Outputs

46 participants are now comfortable with Value Chain concepts. Unfortunately, 7 people from Enga province had to leave the workshop before the end because of security issues. None of them was unsatisfied and all have learnt a lot about value chains during these workshops. Furthermore, a Value Chain Handbook has been designed and shared with the participants in order to maintain a theoretical access to the Value Chain concepts.

3.5.2 Outcomes

According to the assessments during the workshop, the participants have improved their skills and felt much more secure about the Value Chain Approach. They now understand the Value Chain concept and where they can position themselves within it. Because of a relevant selection (achieving the criteria targets), they also understand how they can use the Value Chain approach in their professional lives during their planning and decision-making processes.

The Value Chain Awareness Workshos increased the agro-rural knowledge of local decision makers. The DPLGA was also targeted, however unfortunately the representative only attended half of the Goroka Workshop. This unexpected and uncontrolled situation unfortunately had the consequence that capacity building at DPLGA level could not be fully achieved. It might have been relevant to consider training in Port Moresby in order to ensure the commitment and attendance of this institution's officer(s).

Nevertheless, it is expected that local decision makers in the provinces of the Highlands provinces, will consider value-chain subjects within their strategy for the economic development and mid to long term planning.

Finally, the link between local administration & rural communities, in terms of coordination & cooperation, should be improved. The participants are aware about

role the local administrations play within the Supporting Functions of any Value Chain in the provinces of the Highlands.

3.5.3 Lessons learned

The strong interest for practical exercises among the participants indicates a real interest to become involved. The need to design practical activities, linked with real case studies should be considered in a longer training process approach. Two days are not enough to develop concrete cases which require the participation of many key actors (such as private actors). In addition, the absence of Decision Maker from Port Moresby should be considered as a weakness. A more efficient support from DPLGA or any other relevant institutions would have been very beneficial.

The difficult relationship between tribes, as well as the "wantok" system, must be considered when designing any Value Chain development project.

4 CONCLUSION

4.1 Constraints

- Coordination between the three RED2 components was not effective. There
 was some communication and collaboration with component 2, including (as
 envisaged) a financial education model in the trainings curricula (started at
 ToT):
- In some FRCs it was impossible to conduct the replication trainings due to external situations;
- Time constraint (the remaining allocated time for operations was too short);
- Security reasons;
- In the replication phase the participants' criteria in some cases was not achieved regarding the knowledge of the English language. As the first replication trainings were conducted in English to enable to short-term experts to be able to tutor the trainers, some trainees may not have got the full output of these trainings;
- The inexistence of business-driven farming activities was a reality which was obvious by the lack of knowledge about commercial farming among the trainees;
- Environmental awareness is not considered a constraint or a potential threat.

4.2 Opportunities

- A portfolio of Trainers technically competent and motivated: Their advice and guidance is also sustainable and may lead to important progressive changes – if well supported or organized;
- Farmers showed a strong interest in shifting from substance farming to business farming and requested more specific trainings;
- Interaction with Component 2 and OCS gave positive results;
- OCS is effective organization that can help farmers from the shift from substance farming to business farming;
- Most of the FRCs have been completed and are equipped: They should be able implement the training activity driven by the demand of groups of farmers or by a public/private initiative;
- FRCs can stimulate the group formation of rural stakeholders in value chain development for example by the creation of cooperatives or clusters of farmers;
- FRCs can be the target of new projects or initiatives in rural development;
- Environmental awareness must be included in every future training initiative.

5 RECOMMANDATIONS

5.1 Improving the approach

- Provide specific training activities to trainers in order to create expertise in each area. This recommendation requires extra training initiatives;
- The replication is an efficient way to strengthen the theoretical trainings and its outcomes should be assessed after a period of time (e.g. 3 months). This assessment could monitor:
 - The number of trainings / trainees,
 - · The most requested topics,
 - The organization challenges,
 - The financial issues;
- A relevant mass media communication about the trainings at FRCs level might increase the demand for training activities from famers and push the FRC leaders to set-up extra training activities after the project;
- A better coordination with component 1 & 2 of the RED2 program would improve the program communication with farmers and would increase the relevance of the training activities.

5.2 Improving the sustainability and effectiveness of FRCs

The sustainability of the FRCs has not yet been achieved. One option could be a selection of the most active one(s) and a technical support at different levels:

- The FRCs could be used as assets for potential cooperatives in order to start common business activity;
- The FRCs could be used as a local services providers (supporting function of the Value Chain) with public and private partners: NARI, Microfinance, DPLGA, business support service. The link with the RED2 component 2 is crucial and requires an effective coordination;
- With a relevant and efficient communication, the FRCs could be used as a reference location point for B2B. Dedicated platforms (or workshops) could be organized with relevant key actors (for example private businesses, public institutions, NGOs and the media).

5.3 Value Chain Development in the Highlands

The agriculture value chains in the provinces of the Highlands face several challenges limiting their development. Communication, exchange of products & services, money/financing and information, are some of the most important challenges. In addition lack of infrastructure and lack of security limit trade and reduce competitiveness. Other challenges which restrict value chain development is the limited capacity of local decision makers and support functions. The support

functions are crucial, however unfortunately reduced or sometimes completely absent in the Highlands. Agricultural advisory services are limited (because of lack of sufficient financial resources), financial products do not specifically target famers, logistical facilities dedicated to farmers are not relevant, and there is no specific incentive. Finally, local decision makers do not have sufficient technical resources to select relevant strategic orientations and do not have sufficient financial resources to implement them.

The way forward should focus on creating a positive business environment currently limited in the Highlands: Capacity building of the local decision makers and strengthening of the supporting functions with specific incentives.

A first step, for a better and concrete concepts' appropriation, could be a workshop (if possible, at FRCs level) in order to create links and trust between key actors (private, publics, associations). With technical external support, these workshops might lead to a concrete common action plan with realistic (i.e. initially small scale) business outputs.

On the top of it, awareness workshops should also be provided at national level in order to allow a common framework (local and national) and then, as a tangible outcome, more relevant project designs.