Sub-Regional Workshop on Implementing Chain Studies for Agricultural and Food Products
Honiara, Solomon Islands, 23-25 July 2008

Report

GTFS/RAS/198/ITA: Support to the Regional Programme for Food Security (RPFS) in the Pacific Island Countries

All ACP Agricultural Commodities Programme

Table of Content

I. Introduction

Three subregional workshops on implementing chain studies for agricultural and food products were planned under the extension phase of the Italian funded project "Support to the Regional Programme for Food Security (RPFS) in the Pacific Island Countries (PICs)". The workshops were designed as a follow-up to a set of commodity chain studies undertaken in three PICs between May and December 2006. A regional workshop at which the results of the exercise were presented was held in Fiji in February 2007. In the workshop, participating public and private sector stakeholders recommended that "training of trainers" should be undertaken by FAO at the subregional level, in order to ensure that sufficient capacity is available in each country to implement chain studies and to adjust the investigation tools according to the products and countries to be studied.

II. Objectives

The objectives of the subregional workshops were to:

1. Train policy makers/sector analysts in both the public and private sectors to implement chain studies for agricultural and food products relevant to food security, import substitution, export development.
2. Adapt the investigation tools tested by the commodity chain studies completed in 2007 to the specific needs of targeted subregions and products.
3. Establish and foster networks among key players for commodity chain studies, particularly in relation to trade policies and agriculture development.
4. Consider other regional activities and efforts on commodity chain studies and development.

PICs were divided in three subregions to ensure that the workshops tailored their specific agricultural and geographical characteristics:

1) Cook Islands, Niue, Samoa, Tonga, Tuvalu;
2) Fiji, Kiribati, Nauru, Papua New Guinea, Solomon Islands, Vanuatu;
3) Federated States of Micronesia, Marshall Islands, Palau.

III. Subregional Workshop 2: Solomon Islands

The workshop was held at the Iron Bottom Sound Hotel in Honiara, Solomon Islands, from 23 to 25 July 2008. It was attended by 28 delegates from six countries (Fiji, Kiribati, Nauru, Papua New Guinea, Solomon Islands and Vanuatu) and two regional bodies (SPC[1] and PITIC[2]). Participants were nominated from the ministries of agriculture (13) and trade (4), and from the private sector (9). Six delegates from four participating countries had previously attended the regional workshop on the commodity chain studies held in Fiji in 2007. Resource persons included FAO staff based in Rome (Trade and Markets Division) and Samoa. The list of participants is included in Annex 1. Sponsorship of delegates' attendance was provided by the RPFS and the All ACP Agricultural Commodities Programme funded by the EU.

The programme of the workshop was designed to provide the participants with:

[1] Secretariat of the Pacific Community.
[2] Pacific Islands Trade and Investment Commission.

1) an overview of the RPFS and the activities implemented under the horizontal component;
2) an introduction to the commodity chain studies implemented in Fiji, Kiribati and Vanuatu and the methodology applied, including the investigation tools used;
3) a presentation on uses of, and approaches to, the commodity chain studies, including guidelines on how to select products for investigation, map the chain and determine information requirements;
4) a mapping exercise of commodity chains representative of the countries participating in the workshop and the identification of relevant investigation tools;
5) an introduction of the type of information required in the application of chain investigations;
6) two exercises on how to formulate survey questionnaires and use alternative techniques to collect information;
7) a presentation on sampling concepts and principles of data inputting and processing, followed by a simulation exercise on carrying out a survey and processing the information collected;
8) an overview on how to formulate a chain study proposal at regional or national level;
9) an update on ongoing activities and possible follow-up in developing chain studies in the Pacific region.

A copy of the workshop agenda is included in Annex 2. Each participant was provided with a copy of the Practical guide on implementing chain studies for agricultural and food products in the Pacific region, which was developed on the basis of the three studies undertaken under the RPFS. Additional material, such as a template spreadsheet for data inputting, and presentations were distributed during the workshop. Participants were asked to complete an evaluation questionnaire at the conclusion of the workshop. The results of the questionnaire are included in Annex 4.

IV. Issues and Outcomes

The main issues and outcomes of the Solomon Islands workshop are summarized as follows:

- As in the first subregional workshop held in Samoa in April, the initial sessions focused on the activities implemented by the RPFS, specifically the commodity chain studies. It was recalled that the chain studies were undertaken as a pilot regional exercise, which aimed to test a methodology for assessing the performance of commodity chains representative of PICs needs and priorities, such as food security and trade. Although the exercise covered only three countries in the region due to limited resources, participants recognized that it set an experience that could used as a starting point to developing new chain analyses. Discussions suggested that, among other purposes, new studies could contribute to assess the sustainability of national food production project proposals, for instance under the proposed Food Security and Sustainable Livelihoods Programme in the PICs, or sector strategy development processes, such as in the framework of the All ACP Agricultural Commodities Programme.

- Further discussions focused on aspects required to formulate other study proposals, including the identification of investigative as well as the financial instruments to develop them, such as the Technical Cooperation Programme (TCP) Facility. Participants queried about the identification of beneficiaries. The pilot studies exercise

targeted both public and private operators, with strategies analysts and policy makers as the specific beneficiaries. However it was clarified any given study should identify its beneficiaries in accordance to the scope and purpose of the investigation. Delegates identified the need to promote dialogue and partnerships between public and private stakeholders (profit and non-profit) as key issue. It was recalled that support provided by FAO to facilitate the involvement of both sectors and the sharing of experiences, particularly in regional activities, such as the commodity chains studies exercise or the Roundtable Meetings on WTO and Regional Trade Agreements and Provisions, increased in recent years.

- In contrast to the structure of the subregional workshop held in Samoa, an exercise to map commodity chains selected by the participants was organized prior to more in-depth discussions on the investigation tools tested with the RPFS studies. The experience of the Samoa workshop suggested that any study should commence with a mapping of the targeted chain, which could then be used to identify key information gaps and appropriate tools to collect required information. In this way, had the chain been delimited and mapped and key performance constraints assessed, participants were allowed to ponder alternative approaches for information collection to the use of formal questionnaires, which constituted the main investigation tool in the RPFS studies. Divided in four working groups, participants selected Cassava, Kava, Canarium Nuts and Sweet Potatoes for the mapping exercise. The four products were selected on the basis of their potentials for food security and trade in one or more countries represented in the workshop. A summary of the outcome of the group exercise is provided in Annex 3.

- Subsequent sessions focused on the type of information required to assess a commodity chain and approaches to collect it. Reference was made to the chain study approach and the investigation tools included in the practical guide. The chain study approach was based on surveying and appraising the features of the main components of the targeted chains through: 1) desk research and the collection of information already available (secondary information); 2) direct interviews with a sample of operators using structured questionnaires (primary information). It was however clarified that the distinction between primary and secondary information is a mere practical way for identifying and collecting data, while all information is used to assess the performance of any given chain. Whether of secondary or primary source, illustrations of issues investigated in the chain studies included: supporting policies of targeted products, enterprises and communities structure, production and procurement of investigated products, harvest and post-harvest operations, marketing and trading channels, certification schemes, financing, extension services.

- Among different approaches that can be applied to collect needed information (such as desk research, direct observation, informal discussions or focus groups interviews), the use of structured questionnaires to survey sampled operators was assessed, starting from of the experience developed with the RPFS studies. It was recognized that while this approach is very useful in generating detailed information about the diverse components/operators of a given chain, which often is not readily available or updated in PICs, it can require a significant amount of time (e.g. to refine and validate detailed questionnaires and process collected data into spreadsheet) as well as human and financial resources (e.g. local enumerators would need to be recruited and trained). It was also emphasized that where a structured survey approach is deemed necessary, the

questionnaires included in the Practical guide (designed to survey producers, traders, tourism operators, importers, exporters and consumers) could be used as a template, but with adaptations as required.

- Following insights as to how a structured survey might be designed, two exercises were organized to familiarize participants with developing and adapting questionnaires, and with assessing other information collection techniques. The questionnaire tested in Fiji to survey growers of fruits and vegetables, and the questionnaire tested in Kiribati for the traders of breadfruit, respectively, were used. A speaker for each of the four groups formed for the exercises presented the results of discussions in a plenary session. Overall, it was suggested that several questions could be simplified and the Fiji questionnaire shortened, as some issues asked in the survey (such as concepts on organic agriculture and good agricultural practices, or fully mechanized harvesting practices, or weighted production cost of certification schemes) may not be known, used or recorded by targeted farmers. Focus group interviews or informal discussions were identified as appropriate alternatives to the Kiribati survey, particularly for smaller islands or local commodity market systems where targeted operators are fewer.

- Following presentations on sampling concepts and principles of data inputting and processing, an exercise simulating several aspects (interviewing, recording and data inputting) to conduct a structured survey was made. The exercise exposed the participants to issues related to the complexity, costs and benefits of applying detailed questionnaires. Four groups were formed and each participant played, on a rotation basis, the role of the interviewer, the interviewed, the enumerator and the data-input staff, using the questionnaire for canarium nuts producers in Vanuatu. The simulation exercise highlighted the importance of designing, from the beginning of the survey preparation, not only the information needed and related questionnaires, but also how information would be coded and organized for analysis, so as to ensure that the most reliable data is used. Participants also suggested that a strong awareness of the reasons and uses of a survey, and ownership of the stakeholders involved, would be essential to optimize resources and expected results.

- Requirements and opportunities for new chain studies project proposals were the focus of discussions at the end of the workshop. Reference was made to the design, operational and financial aspects of the commodity chain studies implemented under the RPFS. Resource materials included a project template document, terms of reference for regional/national coordinators and enumerators, report outline, budget, timeframe and responsibilities tables. Three main instruments to potentially initiate new chain investigations with FAO were identified:

    1. TCP Facility, which is intended to quickly respond to a technical assistance need from a member country, including sector and sub-sector studies and assessment as required by the government;
    2. Food Security and Sustainable Livelihood Programme in the PICs, which plans to enhance PICs trade negotiation and promotion capability and their ability to add value to export products through the application of the value chain approach, building on the lessons learnt in the RPFS; and
    3. The All ACP Agricultural Commodities Programme, which aims to build the capacity of stakeholders all along the commodity value chain, including

national policy makers but also producer organisations, to conceive and implement sustainable commodity strategies.

V. Recommendations and Conclusions

The second subregional workshop on implementing chain studies for agricultural and food products was successfully completed in the Solomon Islands. Public and private sector representatives from six PICs (Fiji, Kiribati, Nauru, Papua New Guinea, Solomon Islands and Vanuatu), and two regional agencies (SPC and PITIC) took part in the training. The participants recognised the importance, utility and need of the chain analysis approach to develop agricultural commodities and promote value adding. It was realized that through this approach in-depth evidence of food chains' strengths and constraints can be generated and, as a result, appropriate policy options and targeted actions aimed at improving chains performance better designed.

The participants were updated on FAO current and future programmes and instruments for developing new chain investigations, such as the Food Security and Sustainable Livelihoods Programme in the PICs, the All ACP Agricultural Commodities Programme and the TCP Facility. In view of the Stakeholders Consultative Workshop on Strengthening Partnerships for Food Security and Sustainable Livelihoods (planned in Fiji in September), delegates concurred on the need to brief their ministers and supervisors about the latest developments of the RPFS, and on ways of ensuring an effective linkage of national projects with horizontal activities. The issues of project sustainability and beneficiaries outreach were advocated as specific importance.

Drawing from the lessons learnt in the pilot commodity chain studies and the first subregional workshop held in Samoa, ways to adapt the methodology and the investigation tools developed within the RPFS were extensively explored. It was agreed that new agricultural commodity or value chain investigations should start with a mapping of the targeted chain. The results of which would be used to delimit the chain and identify key strengths, constraints and governance relationships, the information required to assess the performance, and approaches and tools to collect needed information.

At this stage, it was suggested that the existing RPFS methodology could be used in other countries and/or for other commodity chains, although it should always be adapted to the scope of the investigation and the available resources, and not be applied as unique model. Group exercises to map food chains, design structured questionnaires, consider alternative approaches for data collection, simulate surveys and manage information were organised to this end. In commanding the training approach followed, the participants recommended that national workshops should be organised to support the development of new chain investigations.

Discussions of possible product/country combinations in which commodity chain studies could be undertaken identified, for example, kava and cassava flower in Vanuatu, canarium nuts in Papua New Guinea, Solomon Islands and Vanuatu, and sweet potatoes. In all circumstances, any new study would need to be proposed and endorsed by national governments in consultation with relevant stakeholders and FAO.

Annex 1

Sub-regional Workshop on Implementing Chain Studies for Agricultural and Food Products
Honiara, Solomon Islands, 23-25 July 2008

LIST OF DELEGATES (MELANESIAN GROUP)

FIJI

1. Mr Uraia Waibuta
Principal Agricultural Officer
Ministry of Primary Industries
Private Mail Bag
Raiwaqa
Suva, Fiji
Ph: 679 3384 233
Email: Uraia.waibuta@govnet.gov.fj

2. Mr Amrit Prasad Nath
Acting Chief Economists
Ministry of Primary Industries
Private Mail Bag
Raiwaqa
Suva, Fiji
Ph: 679 3372 727
Fax: 679 3372 730
Email: anath001@govnet.gov.fj

3. Mr Richard Veit
Senior Economic Planning Officer
Fiji AgTrade Unit
Ministry of Agricultural and Primary Resources
Suva, Fiji
Ph: +679 3384 900
Email:Richard.veit@govnet.gov.fj

4. Mr Apisai Ucuboi
Acting Deputy Secretary
Ministry of Agricultural & Development
Suva, Fiji
Ph: +679 337 2727
Email: Apisai.ucuboi@govnet.gov.fj

KIRIBATI

5. Ms Kinaai Kairo
Director of Agriculture
MELAD
P O Box 267
Tarawa, Kiribati
Ph: 686 28108
Fax: +686 28121
Email: kinaai_3@yahoo.com

6. Mr Rota Onorio
Industrial Promotion Officer,
Ministry of Commerce, Industrial and Cooperatives
P O Box 510
Tarawa, Kiribati

Ph: 686 26157
Fax: 686 26233
Email: ronorio@mcic.gov.ki

NAURU

7. Mr Gregory Adonis Stephen
Project Officer
Department of Commerce, Industry and Resources
Govt Offices
Yaren, Nauru
Ph: +674 444 3133
Email: Gregory.stephen@naurugov.nr

8. Ms Joyce Jeremiah
Project Officer
Department of Commerce, Industry and Resources
Govt Offices
Yaren, Nauru
Ph: +674 444 3133
Email: jaysitah@hotmail.com

PAPUA NEW GUINEA

9. Mr Gus Maino
Marketing Advisor
Fresh Produce Development Agency
P O Box 2788
Boroko, Papua New Guinea
Ph: +675 321 5520
Fax: +675 321 5519
Email: fpdapom@global.net.pg

10. Mr Bede Temokita
Assistant Secretary
Industry Development Branch
Dept of Commerce and Industry
P O Box 375
Waigani, Papua New Guinea
Ph: +675 311 2001 / 3256099
Fax: +675 325 6108
Email : btomokita@dci.gov.pg

SOLOMON ISLANDS

11. Mr Noel Roposi
Principal Planning Officer (Marketing)
Ministry of Agriculture and Livestock
P O Box G13
Honiara, Solomon Islands
Ph: +677 22142
Fax: +677 28365
Email: rnoel2008@gmail.com

12. Mr Jimi Saelea
Director of Agricultural Research
Ministry of Agriculture and Livestock
Honiara, Solomon Islands
Ph: +677 28925/22143
Email: j_saelea@yahoo.com

13. Mr Moses Garu
Principal Planning Officer
Ministry of Agriculture and Livestock
P O Box G13
Honiara, Solomon Islands
Ph: +677 26044
Email: garumoses@yahoo.com

VANUATU

14. Mr Ioan Viji
Principal Forestry Officer
Ministry of Agriculture, Quarantine, Forestry
Private Mail Bag
Port Vila, Vanuatu
Ph: 678 23856
Fax: 678 25051
Email: ioan_viji02@yahoo.com

15. Ms Emely Tumukon
Manager
Food Technology Development Centre
PMB
Port Vila, Vanuatu
Ph: 678 25978
Fax: 678 25978
Email: kalsakau@gmail.co.

16. Mr Georges Kanegai
Planning/Farming System Officer
Ministry of Agriculture, Quarantine, Forestry
Private Mail Bag
Port Vila, Vanuatu
Ph: 678 22525
Email: georges.k@voila.fr

17. Ms Sylvie Warimavute
Assistant Plant Protection Officer
Ministry of Agriculture, Quarantine, Forestry
Private Mail Bag
Port Vila, Vanuatu
Ph: 678 23519
Fax: 678 23130
Email: swarimavute@vanuatu.gov.vu

PRIVATE SECTOR

18. Ms Abana Ieremia
Deputy Coordinator
Kiribati Association of Non-Government organization
P O Box 162
Kiribati
Ph: 686 22820
Fax: 686 22819
Email: momi_303@yahoo.com or kango@tskl.net.ki

19. Mr Kyle Stice
Koko Siga Ltd

16 Goodenough Street
Suva, Fiji
Ph: 679 3305 844
Fax: 679 3305 668
Email: kylestice@hotmail.com

20. Mr Luke Naimawi Tirimaidoka
Horticulture Extension Officer
Nature's Way Co-operative (Fiji) Ltd
P O Box 9825
Fiji
Ph: +679 6724 566
Fax: +679 6724 569
Email: qtnlukefj@hotmail.com

21. Mr Kai Ming Qiu
Director
Kai Ming Agricultural Processing Ltd
Navua
Fiji
Ph: +679 3460 928
Fax: +679 3460 619
Email: kaiming@connect.com.fj

22. Ms Ginette Dousseron
Manager
Kava Exports
P.O. Box 1472
Port Vila, Vanuatu
TEL/FAX: (678) 26164 MOB: (678) 7747091
Email: islmed@vanuatu.com.vu

23. Mr Robert Paruruman Lutulele
Divisional Manager (Production and Supply)
Fresh Produce Development Agency
P O Box 958
Goroka Eastern Highlands
Papua New Guinea
Ph: 675 732 3356
Fax: 675 732 3357
Email: fpda.mid.mas.one@global.net.pg

24. Mr John Vollrath
Director
Solomon Tropical Products
P O Box 1870
Honiara, Solomon Islands
Ph: +678 38553
Fax: +678 38552
Email: stp@solomon.com.sb

25. Mr Pitakia Moses Pelomo
General Manager
Commodities Export Marketing Authority
P O Box 1087
Honiara, Solomon Islands
Ph: 677 22347
Fax: 677 21262
Email: cema@solomon.com.sb

26. Mr Alfred Ramo
Manager Commodities Development
Commodities Export Marketing Authority
P O Box 1087
Honiara, Solomon Islands
Ph: 677 22528
Fax: 677 21262
Email: cema@solomon.com.sb

REGIONAL ORGANIZATIONS

27. Ms Louisa Sifakula
Pacific Islands Trade and Investment Commission
PO Box 109 395
Auckland, New Zealand
Email: LouisaS@pitic.org.nz

28. Mr Lex Thompson
FACT Team Leader
Secretariat of the Pacific Community
Private Mail Bag,
Suva, Fiji
Ph: 679 3378295 or 679 337 9295
Fax: 679 337 0021
Email: LexT@spc.int

RESOURCE PERSONS

29. Mr Bismarck Crawley
Subregional Office for the Pacific
Food and Agriculture Organization
Email: Bismarck.Crawley@fao.org

30. Mr Massimo Diomedi
Trade and Markets Division
Food and Agriculture Organization
Email: Massimo.Diomedi@fao.org

31. Mr Brian Moir
Trade and Markets Division
Food and Agriculture Organization
Email: Brian.Moir@fao.org

Annex 2

Provisional Agenda for the Solomon Islands Workshop

Time	Topic	Speaker/Facilitator
	Day 1	
13:00 – 14.00	Introduction/background of the regional component of the RPFS in the Pacific Summary of the commodity chain studies and the outcome of the final workshop held in Fiji in 2007	Bismarck Crawley, FAO Massimo Diomedi, FAO
14:00 – 15:00	Introduction to the use of Commodity Chain Studies This session will provide an introduction to commodity chain studies: their uses, information requirements and alternative methodologies and investigation tools	Brian Moir, FAO
15:00 – 15:30	*Coffee Break*	
15:30 – 17:00	*Working in two groups* Exercise 1 - Mapping of a fruit/vegetable product chain in Fiji for import substitution/export development, and identification of relevant primary and secondary investigations tools Using example of the Fiji fruit & vegetable study	Brian Moir/Massimo Diomedi, FAO
	Day 2	
09:00 – 10:30	*Working in two groups* Exercise 1 - Mapping of a fruit/vegetable product chain in Fiji for import substitution/export development, and identification of relevant primary and secondary investigations tools (cont) Using example of the Fiji fruit & vegetable study	Brian Moir/Massimo Diomedi, FAO
10:30 – 11:00	*Coffee break*	
11:00 – 12:00	Collection of primary and secondary information This session will outline considerations in the use of different approaches to collecting information: (i) Survey/Questionnaire design (structure of questionnaires, question types, recording answers) (ii) Using secondary information	Massimo Diomedi, FAO

	(iii) Participatory approaches	
12:00 – 13:30	*Lunch break*	
13:30 – 15:00	*Working in two groups* Exercise 2 - Developing and adapting questionnaires: Using the Fiji producers questionnaire to consider: • what information is actually needed • how should questions be formulated • how will the information be used Reporting to plenary	Brian Moir/Massimo Diomedi, FAO
15:00 – 15:30	*Coffee break*	
15:30 – 17:00	*Working in two groups* Exercise 3 - Selecting appropriate information collection techniques Using a subset of questions from the Kiribati Traders Questionnaire participants will evaluate alternative approaches to collecting information of a specific issue Reporting to plenary	Brian Moir/Massimo Diomedi, FAO
	Day 3	
09:00 – 09:45	Determinants of sample selection This session will introduce concepts and approaches that need to be considered in selecting sample units (for example, producers, geographic areas targeted etc): i) Trade-offs between the need for precision/ability to generalise and resource constraints ii) The relative merits of different techniques identifying sample units	Brian Moir, FAO
09:45 – 10:15	Data inputting and processing This session would introduce principles in design of data input, validation and verification of data	Brian Moir, FAO
10:15 – 10:45	*Coffee break*	
10:45 – 11:00	Introduction to group exercise 4	Massimo Diomedi, FAO

11:00 – 12:00	*Working in groups* Exercise 4 - Simulation exercise in questionnaire use, data input and data processing Using example of the study on nangai nuts in Vanuatu	Brian Moir/Massimo Diomedi, FAO
12:00 – 13:30	*Lunch*	
13:30 – 15:00	*Working in groups* Exercise 4 - Simulation exercise in questionnaire use, data input and data processing (cont) Using example of the study on nangai nuts in Vanuatu	Brian Moir/Massimo Diomedi, FAO
15:00 – 15:30	*Coffee Break*	
15.30 – 16.00	Plenary session addressing specific questions arising from the Simulation exercise Processing data – case study example	Brian Moir/Massimo Diomedi, FAO
16.00 – 16.30	Report outline, responsibilities, timeframe & budget, expected results Discussion	Massimo Diomedi, FAO
16.30 – 17.00	Follow-up to the workshop Closing of workshop	FAO

Annex 3

Groups Exercise on Cassava, Kava, Canarium Nuts and Sweet Potatoes Chains

As part of the subregional training workshop on Implementing Chain Studies for Agricultural and Food Products, held in Solomon Islands 23-25 July 2008, a short group exercise[3] was undertaken to illustrate key principles in using the value chain mapping approach to identify information required to analyse key constraints to chain development and to introduce the key determinants of the choice of approach to data collection. Each of four groups practised the mapping of a commodity chain important for food security and trade: Cassava, Kava, Canarium Nuts and Sweet Potatoes. The chains of targeted products were first mapped (activities, linkages, relationships) and then information required to identify solutions to key "hypothesised" constraints was identified. On the basis of this, approaches to information collation were discussed.

The steps followed are summarised as it follows:

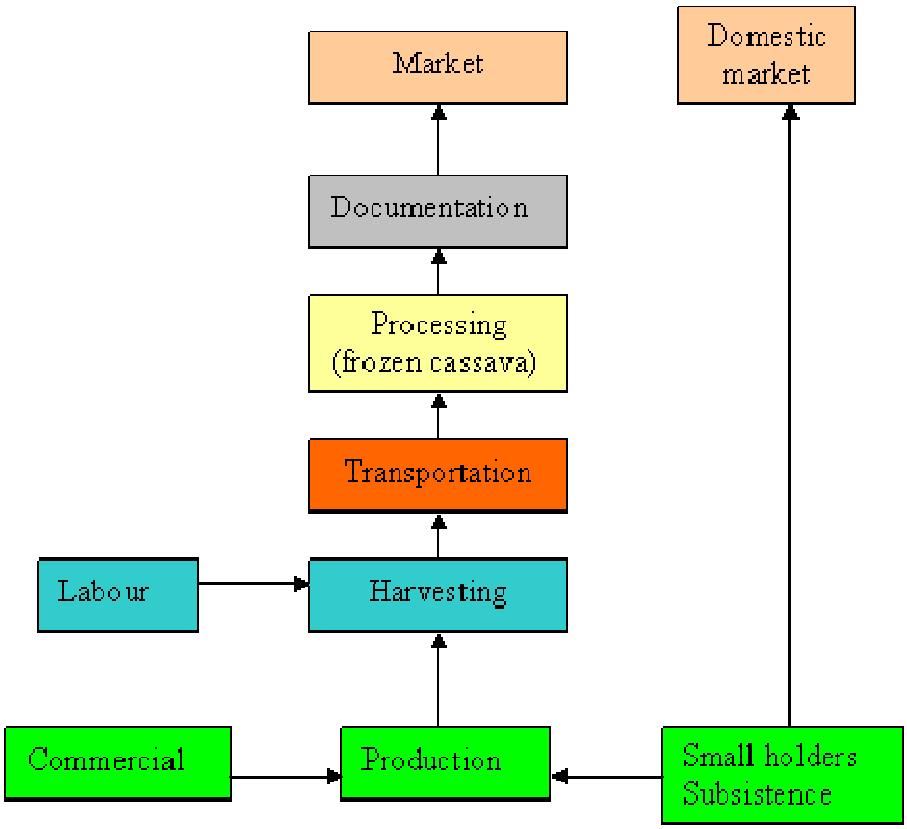
1. Select and delimit the value chain
2. Identify approx six main activities between the start of the production process and sale to the final customer
3. Identify distinct marketing channels or final outlets
4. Work backwards along the chain identifying the types of enterprises that carry out each successive function
5. Consider the governance relationships between adjacent enterprises in the chain using the following conventions:
   - A dotted line to denote an arm's-length market relationship
   - A single unbroken line represents a persistent, network relationship between independent firms
   - A thickened line represents vertical integration (successive stages are within the boundaries of a single enterprise)
6. Indicate areas for which adequate information is not available by placing question marks on the map

This brief summarises some key issues and findings from the exercise (which was not intended to be comprehensive).

[3] It should be noted that the exercise was illustrative, completed during a half day session and that the results of the exercise have not been validated.

Mapping the Cassava Chain

The mapping of the cassava chain was carried out to investigate opportunities for value adding in Fiji, in order to increase exports to PICs and foreign markets. A visual representation of the mapping is provided below. Six main activities were mapped and an approach framework identifying the features of each activity and the information needed in order to assess the chain performance was formulated. Details on main approaches to gather required information remained however undecided.



Mapping Approach Framework

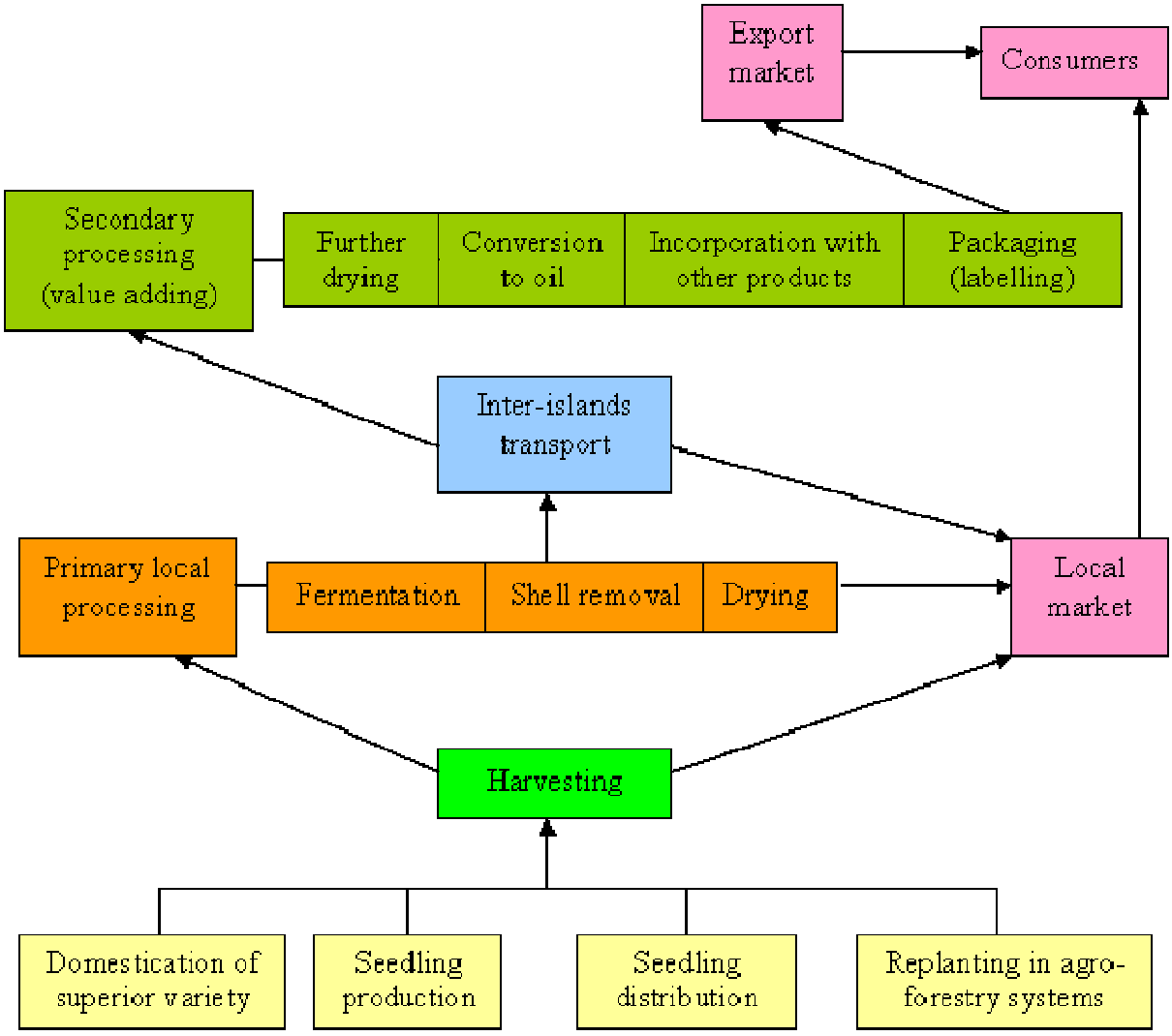
Fiji Cassava Value Chain
(Implementing chain studies for Fresh, Frozen, Processed Cassava)
Focus Area: Production, Quality, Food Safety, Phytosanitary and Marketing

	Activities	Actors/ Roles or Responsibilities	Input supply	Linkage	Constraints	Information
1	Production	• Farmers (C/S) • Extension Advise	• Planting Material (Variety) • Labour • Tools & Equipments • Agro inputs • Land availability • Technical Advice	Input supply linked to production for farmers to produce cassava in order to ensure consistent supply of quality cassava for export, enough to meet the demand to ensure food security, and processing (Land+ labor + inputs +tools equipments= production)	• Consistency of supply to meet market demand • Quality management and Pest Risk Managements during production	Package of practices; Economic of cassava; Market availability and channels; Natural disaster not in control of; Cost and sources of inputs equipments; Report under production available Ministry.
2	Harvest	• Farmer/ Exporters	• Labour • Bags • Quality, grade requirements	Cassava planted is harvested consume by people as it is one of Fiji staple food, prepared by farmer to be sold in local markets, exporters and processing companies. Harvesting is done physically, cassava sorted and packed in bags, baskets Cassava + labour +sort+ Pack = Harvest and ready for sale and transportation	Labour intensive at commercial production meaning costly	Different method of harvest and how practical over time and cost
3	Buying/ Transportation	• Middleman • Farmer • Exporter • Groups	• Good Vehicle • Labour for weighing and loading	After harvesting some cassava are purchased at farm gate where weighing and cash transaction take place or loaded into trucks and delivered to packhouse, market or processing company Vehicle+labour+cash=buying and transportation	Buying price	Price, competitor price Places of production for cassava
4	Processing	• Exporter • Processors • Quality Controllers • Cooling & Transportation containers	• Package bags • Labour • Sealer • Scale • Tables • Washing area • Tubs • Cooler / Transport • Temperature control	When at processing company cassava is peeled, wash, pack according to weight requirement with properly labelled packaging material before being transferred to cooler. The temperature control is important in order to ensure quality is maintained Peeling + washing+ packing + cooling + Transportation = processing	Quality control	Processing information Different cost and sources Data base of processors

5	Documentation	• Quarantine • Shipping agents	• Airway bill /sea waybill • Phytosanitary certificates	Once container is full, the exporter will make arrangement with cargo handling agents to shipping arrangements, preparation of seawaybill and also with Fiji Quarantine on the phytosanitary certificate	Level & Cost of compliance on SPS/TBT requirements	Import Health Standard
6	Marketing	• Exporter • Airline/vessel • Importer	• Shipping schedule • Documents necessary for the clearance • Distribution outlet in NZ, AUS, USA, PIC	After documentation details of the arrangement is sent to the importer with details of shipping. The importer will await arrival and would be at the wharf for the Biosecurity clearance and container taken to yard for verification, distribution to other centers and to retail supermarkets for sale. Feedback on some of the marketing shortfall or more demand Container+ Quarantine + shipping agents+ cargo vessel+ border clearance+ yard+ distribution center+ retail shop=Marketing	Cost of shipping distribution and Fulfilling of market demand and response of noncompliance and corrective actions	Market demand

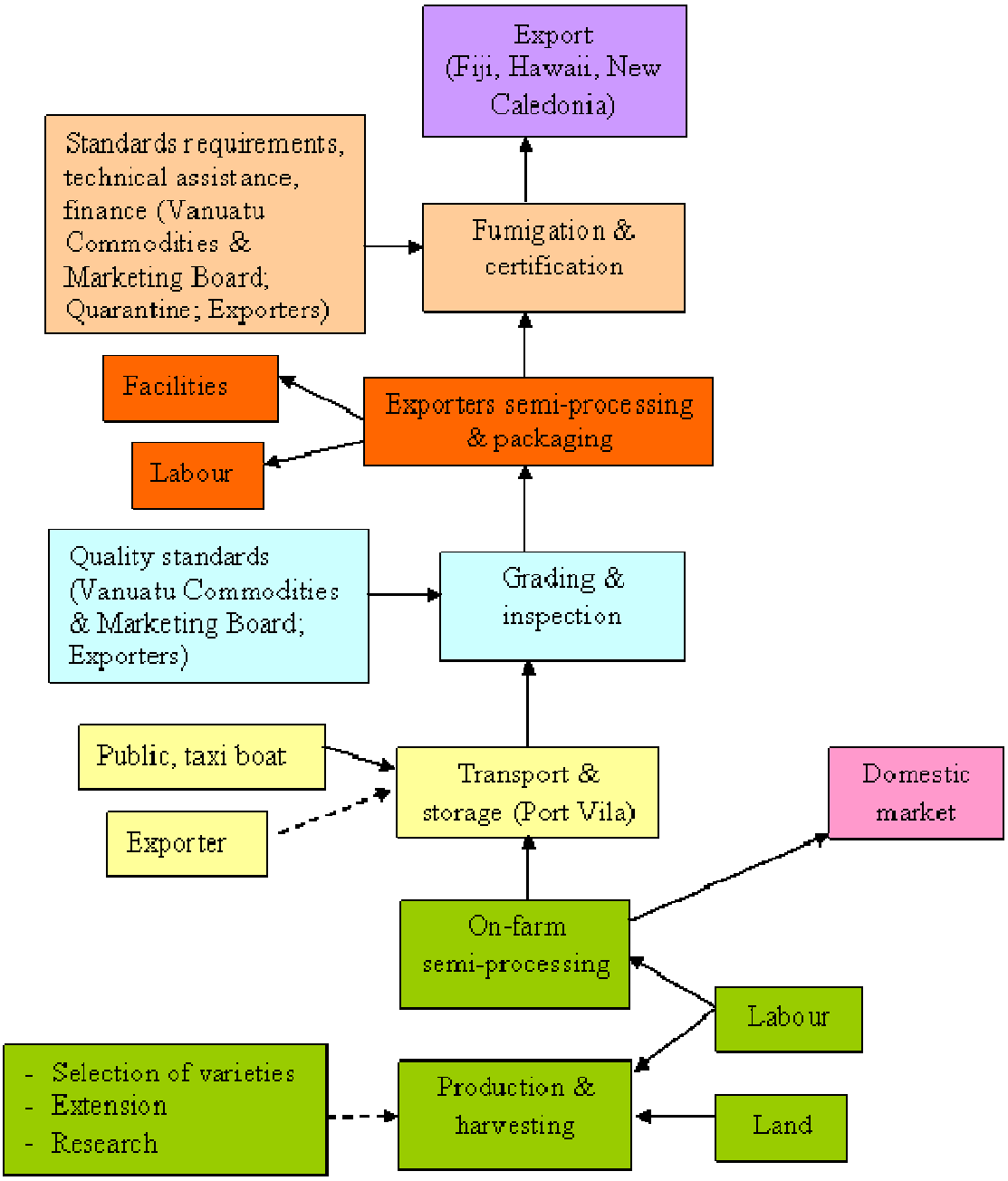
Mapping the Canarium Nuts chain

The mapping of the canarium nuts chain was undertaken to investigate the potentials for Solomon Islands, Vanuatu and Papua New Guinea to develop jointly the production of raw nuts for the domestic market and the processing of nuts for exports. Six main activities represented in different colours in the picture below were identified. With differences in the three countries, canarium nuts are mainly produced in wild fields and the quantities harvested are not known. The group therefore deemed necessary to conduct a survey of canarium nuts growers on areas densely populated by canarium trees, so as to make estimations on current and expected yields. Farmers' organizations should also be investigated on inputs supply and best nuts cultivation practices. Priority research was also proposed to focus on credit facilities for the processing of nuts, while quality control findings could be developed with direct observation and interviews with processors. Research on the enforcement of regional trade agreements between the three targeted countries should be developed. External markets studies and export volume and price estimations were also considered necessary, however the approach to generate this information was not specified.



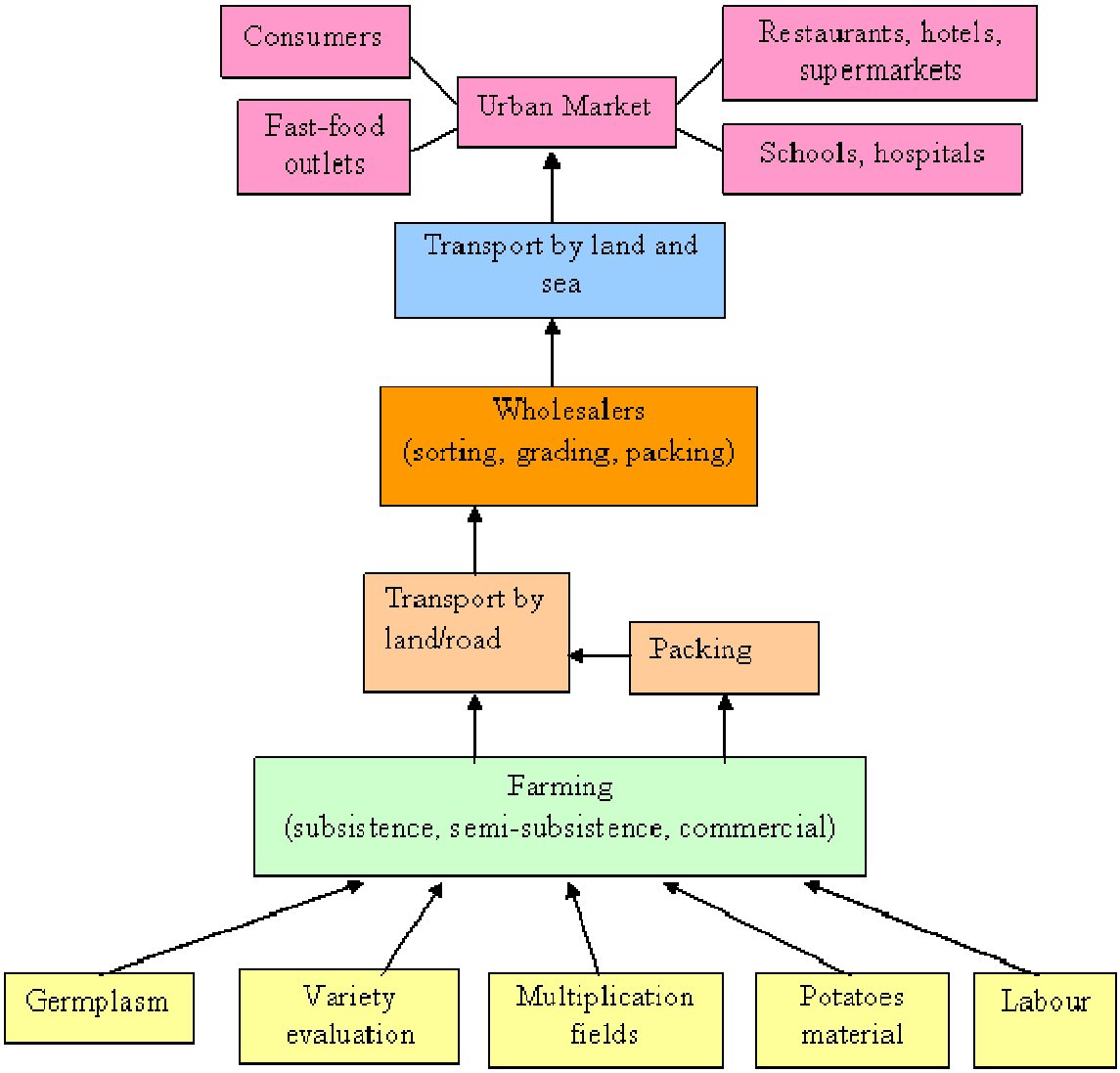
Mapping the Kava chain

The mapping of the kava chain was simulated in Vanuatu with the aim of investigating the performance of a kava export pathway and exploring ways for improvement. Six main chain activities were identified as represented in the picture below. The group focused on four types of information that was reported as not known: 1) quantity of kava production and exports; 2) prices: 3) external markets preferences; 4) use of chemicals. For information on kava production quantity, it was proposed to gather data from an agricultural census which was recently completed, while for quantity of exports it was suggested to visit the quarantine authority. Information on kava production could be verified through a survey of producers, which was also considered useful for estimating local market prices and use of chemicals. Suppliers of chemicals were proposed to be interviewed to compare survey data. For external market preferences, the group suggested to commission a study on consumers preferences of kava varieties to PITIC, which could also be used to estimate price levels in overseas markets.



Mapping the Sweet Potatoes chain

The mapping of the sweet potatoes chain was drawn targeting urban consumers. The exercise brought together the experience of several countries, namely Papua New Guinea, Solomon Islands, Kiribati and Nauru. Six main chain components were identified and are represented in the picture below. It was suggested that a sweet potatoes chain study should investigate production, transportation, distribution, marketing and socio-economic issues. To this end, information needed from the input supply to the market components was identified (although approaches to collect it were not elaborated). Information on varieties, location and number of multiplication sites, and availability and unit cost of sweet potatoes material was deemed necessary to assess the input supply and farming components. A survey of farmers would be needed to generate data on number and classification of farmers, on-farm packaging practices and costs, and capacity/reliability of sweet potatoes supply. Total sweet potatoes production could also be estimated. Information not known also related to the number of wholesalers and transport operators, and to the unit cost of supplying sweet potatoes to the urban market. The group also considered important to gather information from the final consumers and clients on varieties most purchased, quality, quantity and market prices.



Annex 4

Workshop Evaluation Questionnaire

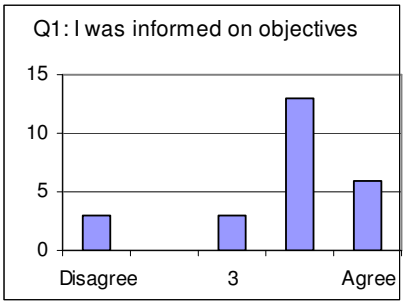
A questionnaire (attached) was distributed to participants at the end of the workshop. This questionnaire was taken from the internet, and was not prepared specifically for this workshop, but it was considered to be appropriate.

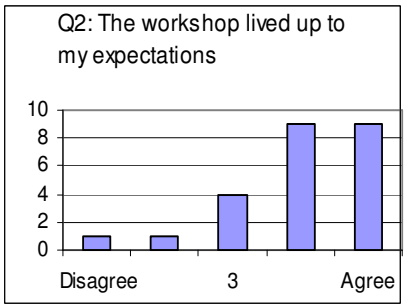
Participants were generally positive, with a high proportion indicating responses of levels 4 (agree) and 5 (Strongly agree) to all of questions 1 to 13. Totalled over the 13 questions and 25 respondents, 260 of 324 (80 percent) individual responses were either 4 or 5. Based on discussion with the participants, it seems likely that one or two who indicated negative responses had mis-interpreted the questionnaire, and indicated 1 and 2 where they intended 5 and 4. On the basis of these responses, the workshops were considered to be valuable.

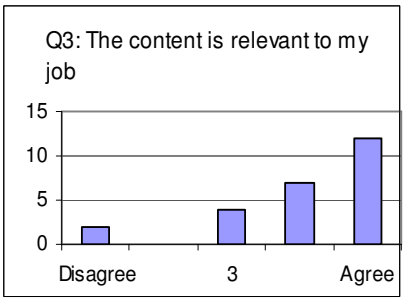
Responses to Question 14: "How would you improve this workshop?" were perhaps the most useful. Of the 25 respondents who completed the questionnaire, 13 suggested the workshop should have been allocated more time, 12 felt that more information should have been provided in advance of the workshop, 8 felt that the instructional methods might have been better, and a further 6 said the activities should have been more stimulating. These points should clearly be considered by the organizers of any future such activities, who might also prepare an evaluation questionnaire for the workshop.

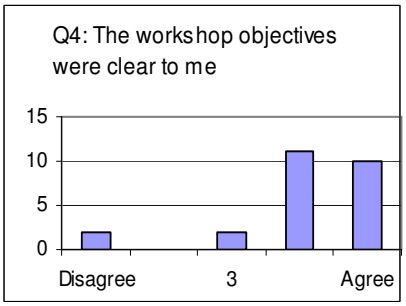
Responses to Q. 14: How would you improve this workshop?

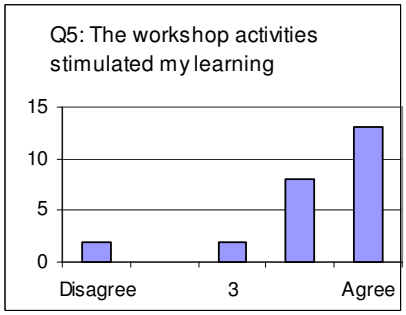
	Number
Provide better information before the workshop	12
Clarify the workshop objectives	5
Reduce content covered	1
Increase the content covered	4
Update the content	6
Improve the instructional methods	8
Make workshop activities more stimulating	6
Improve workshop organization	6
Make the workshop less difficult	4
Make the workshop more difficult	0
Slow down pace of the workshop	5
Speed up the pace	1
Allot more time for the workshop	13
Shorten the time for the workshop	0
Improve the tests used in the workshop	8
Add more video to the workshop	4
Total number of respondents:	25

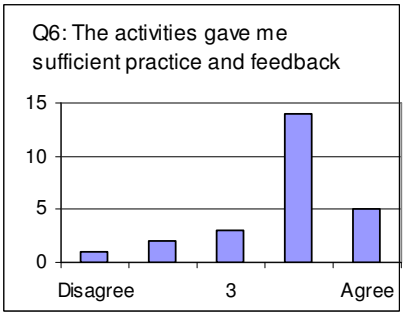

Q1: I was informed on objectives
15
10
5
0
Disagree
3
Agree

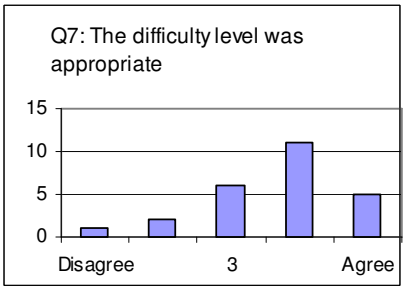

Q2: The workshop lived up to my expectations
10
8
6
4
2
0
Disagree
3
Agree

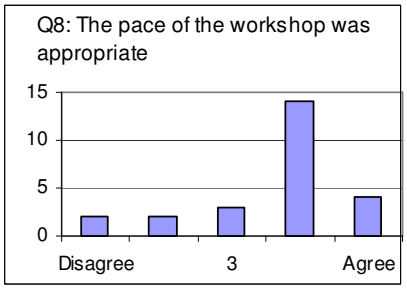

Q3: The content is relevant to my job
15
10
5
0
Disagree
3
Agree

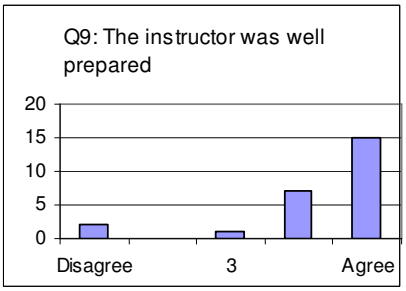

Q4: The workshop objectives were clear to me
15
10
5
0
Disagree
3
Agree

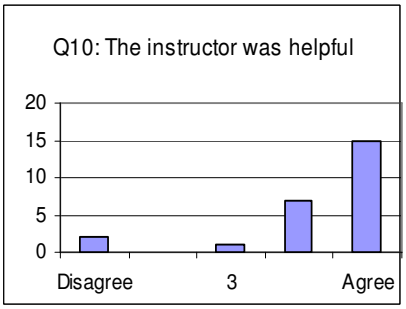

Q5: The workshop activities stimulated my learning
15
10
5
0
Disagree
3
Agree

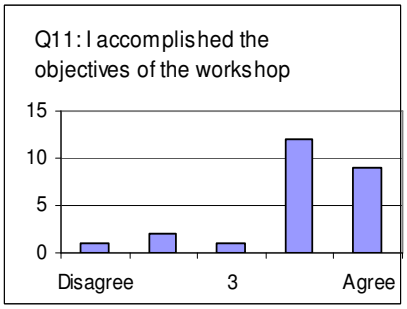

Q6: The activities gave me sufficient practice and feedback
15
10
5
0
Disagree
3
Agree

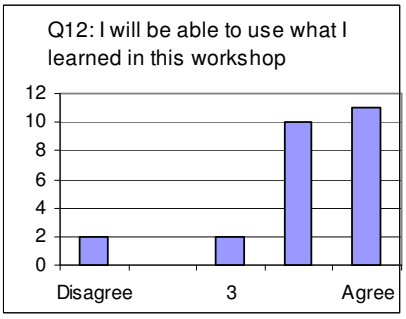

Q7: The difficulty level was appropriate
15
10
5
0
Disagree
3
Agree

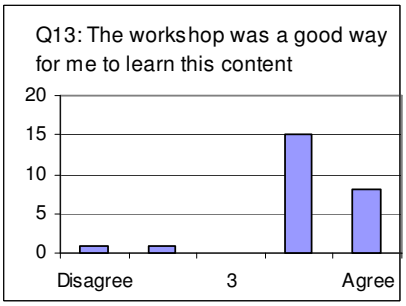

Q8: The pace of the workshop was appropriate
15
10
5
0
Disagree
3
Agree

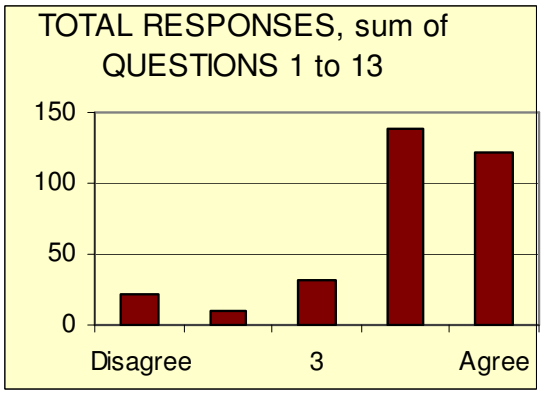

Q9: The instructor was well prepared
20
15
10
5
0
Disagree
3
Agree


Q10: The instructor was helpful
20
15
10
5
0
Disagree
3
Agree


Q11: I accomplished the objectives of the workshop
15
10
5
0
Disagree
3
Agree


Q12: I will be able to use what I learned in this workshop
12
10
8
6
4
2
0
Disagree
3
Agree


Q13: The workshop was a good way for me to learn this content
20
15
10
5
0
Disagree
3
Agree


TOTAL RESPONSES, sum of QUESTIONS 1 to 13
150
100
50
0
Disagree
3
Agree

SAMPLE WORKSHOP EVALUATION QUESTIONNAIRE

Workshop Name: _____
Training Location: _____
Participant Name (optional): _____
Date: _____
Job Title: _____
Years in present position? <1 1-3 3-5 5+

INSTRUCTIONS
Please circle your response to the items. Rate aspects of the workshop on a 1 to 5 scale:
1 = "Strongly disagree," or the lowest, most negative impression
3 = "Neither agree nor disagree," or an adequate impression
5 = "strongly agree," or the highest, most positive impression
Choose N/A if the item is not appropriate or not applicable to this workshop.

WORKSHOP CONTENT (Circle your response to each item.)
1. I was well informed about the objectives of this workshop. 1 2 3 4 5 N/A
2. This workshop lived up to my expectations. 1 2 3 4 5 N/A
3. The content is relevant to my job. 1 2 3 4 5 N/A

WORKSHOP DESIGN (Circle your response to each item.)
4. The workshop objectives were clear to me. 1 2 3 4 5 N/A
5. The workshop activities stimulated my learning. 1 2 3 4 5 N/A
6. The activities in this workshop gave me sufficient practice and feedback. 1 2 3 4 5 N/A
7. The difficulty level of this workshop was appropriate. 1 2 3 4 5 N/A
8. The pace of this workshop was appropriate. 1 2 3 4 5 N/A

WORKSHOP INSTRUCTOR (FACILITATOR) (Circle your response to each item.)
9. The instructor was well prepared. 1 2 3 4 5 N/A
10. The instructor was helpful. 1 2 3 4 5 N/A

WORKSHOP RESULTS (Circle your response to each item.)
11. I accomplished the objectives of this workshop. 1 2 3 4 5 N/A
12. I will be able to use what I learned in this workshop. 1 2 3 4 5 N/A

SELF-PACED DELIVERY (Circle your response to each item.)
13. The workshop was a good way for me to learn this content. 1 2 3 4 5 N/A

14. How would you improve this workshop? (Check all that apply.)
___Provide better information before the workshop.
___Clarify the workshop objectives.
___Reduce the content covered in the workshop.
___Increase the content covered in the workshop.
___Update the content covered in the workshop.
___Improve the instructional methods.
___Make workshop activities more stimulating.
___Improve workshop organization.
___Make the workshop less difficult.
___Make the workshop more difficult.
___Slow down the pace of the workshop.
___Speed up the pace of the workshop.
___Allot more time for the workshop.
___Shorten the time for the workshop.
___Improve the tests used in the workshop.
___Add more video to the workshop.