CALIDENA Diagnostic Workshop - Quality Infrastructure

Suriname's Yard Long Beans Value Chain

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Content

Acronyms and abbreviations

ASFA	Associatie van Surinaamse Fabrikanten (Manufacturing association Suriname)
BOG	Bureau of Public health
CBI	Centre for promotion of imports from developing countries
BRC	Britisch Retail Consortium
CROSQ	CARICOM Regional Organisation for Standards and Quality
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practice
HACCP	Hazard Analysis Critical Control Point
MoA	Ministry of Agriculture
NVWA	Nederlandse Voedsel- en Warenautoriteit (Dutch Food Authority)
PTB	Physikalisch- Technische Bundesanstalt (German National Metrology Institute)
QI	Quality Infrastructure
SMEs	Small and Medium Enterprises
SSB	Suriname Standaarden bureau (Suriname Bureau of Standards)
VEAPS	Vereniging van Exporteurs van Agrarische Producten in Suriname (Association of Exporters of Agricultural Products in Suriname)

1 INTRODUCTION

A CALIDENA Diagnostic Workshop 'Quality Infrastructure for Suriname's yard long beans value chain' was held in Paramaribo from the 1st to the 3th of September, 2015.

The workshop was part of a PTB funded project entitled, Establishment of A Demand-Oriented and Regionally Harmonized and Quality Infrastructure Project in the Caribbean, (RQ1-4-Project). The Project seeks to improve the range of available services offered by regional quality infrastructure organisations and enhance the capacity of these organizations to offer these services.

One of the key components of the RQI-4-Project is the CALIDENA process. The CALIDENA methodology is a demand driven approach which assesses and diagnoses quality infrastructure issues at each level in a value chain, with the aim of increasing competitiveness in the chain.

Value chains must satisfy set criterion such as real opportunities for export, experience and advances in chaining, diverse quality services, participation of SMEs in the chain, conscious need to improve the chain and motivation of stakeholders to dedicate time and resources. The process is conducted in three stages – a feasibility stage which assesses eligibility of the value chain to participate in the process; a diagnostic stage which takes the form of a workshop and involves identifying and promoting concrete actions that would improve quality services in a value chain; and finally an implementation stage where the actions identified in the diagnostic stage are implemented.

This report documents the three day workshop and presents the concrete products (gap analysis, action plans) that resulted from the workshop.

2 PROGRAM OF THE WORKSHOP – DAY 1

2.1 Opening & Welcome remarks

The workshop is opened by the Director of the Suriname Bureau of Standards, Mrs Ingrid de Bel - Simson, after whom the project coordinator of the RQI4 Projects miss Janice Hilaire addresses the participants and mister Riekhnath Sanchit; representative from Vereniging van Exporteurs van Agrarische Producten in Suriname, VEAPS1.

Ingrid de Bel - Simson

Janice Hilaire

Riekhnath Sanchit

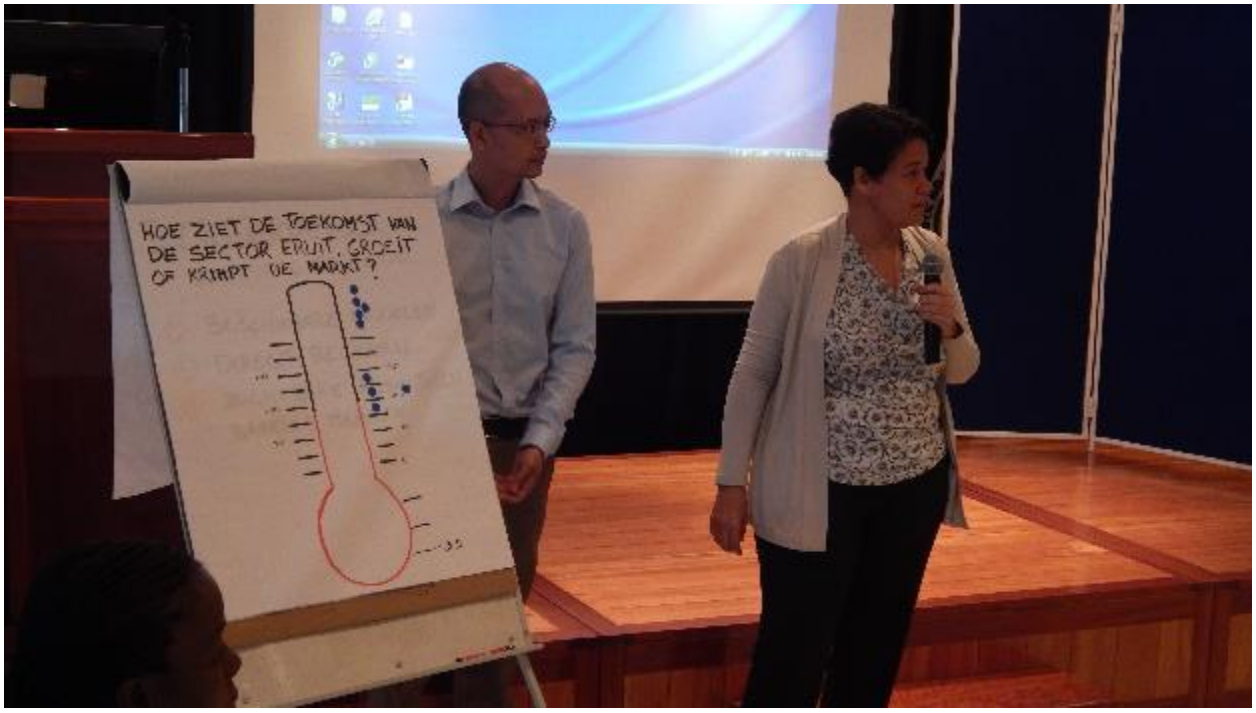
2.2 Warm up

To catalyze the workshop, a warm up exercise is conducted. The participants are asked the question:

"What does the future of the yard long beans look like for Suriname and also internationally; is there a growing or shrinking market?"

[1] Association of Exporters of Agricultural Products in Suriname

The participants are asked to place a sticker on a thermometer drawn on the board at the appropriate gradation to indicate what the future of the beans look like. The session is facilitated by Ms. Wijngaarde and Mr. Towikromo.



The majority of the participants indicate that the market is growing. There seems to be a large demand of long yard beans both nationally and internationally, because it is easy to grow, easy to prepare and it is very much used on the local market (restaurants and food shops etc.).

A number of mitigating factors were also mentioned: little support to the agricultural sector, no capacity for and no culture of maintenance in Suriname, too much of a focus on export to the Netherlands only.

2.3 Value Chain: "The living chain" exercise

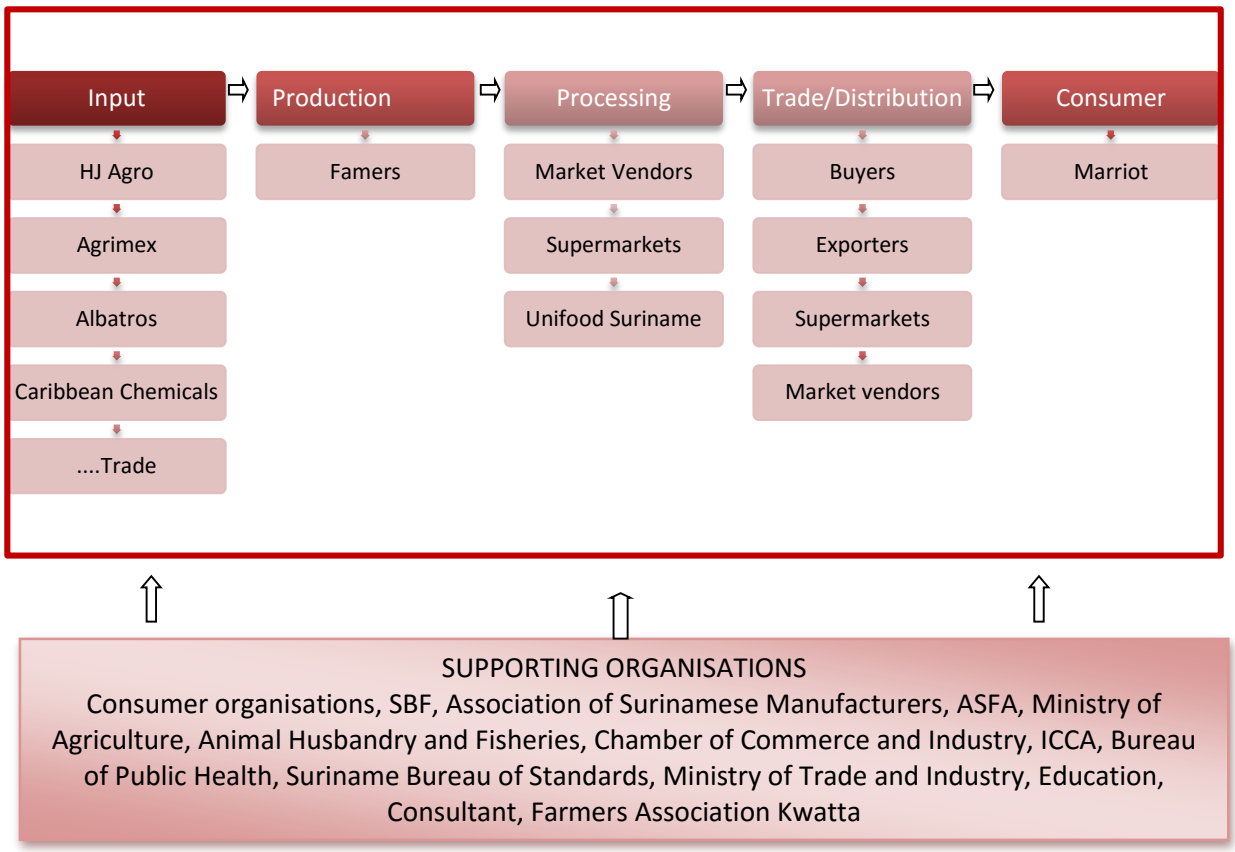
"A value chain in agriculture describes the range of activities and set of actors that bring agricultural product from production in the field to final consumption, wherein at each stage value is added to the product." [2]

To visualise the value chain and to identify which actors of the chain are present and which are missing at the workshop the "living chain" exercise is performed.

A space is marked out with adhesive tape on the floor for each link. A square is also marked out for supporting organizations, such as projects, etc. Participants position themselves in the spaces marked according to their location in the chain. They introduce themselves and stick the corresponding cards on the boards prepared per link (input, production, processing and distribution/trade) and per supporting organisation.

Two groups are formed who then identify who is missing from the chain and who should have been present at the workshop. The working groups then complete the stakeholders per link and level, and put up the cards with the names on the corresponding boards, respecting their function as business/ producers, quality services, standards and regulatory institutions.

[2] http://www.slideshare.net/afaas/agricultural-value-chain-analysis



Some of the missing actors identified are:

- Farmers association Kwatta
- Association of Surinamese Manufacturers, ASFA
- The consumer organisation
- The educational institutions such as the university

2.4 Introduction of objectives and agenda

The objectives of the workshop are presented:

General Objectives

The general objective is to strengthen the quality infrastructure and services for the Yard long Beans Value Chain in Suriname.

Specific Objectives

1. To identify bottlenecks and specific actions to strengthen the quality infrastructure strengthen of the value chain of yard long beans i.e.

- The quality on company level (micro level)
- The quality related services (meso level)

- Regulations and standards (macro level)

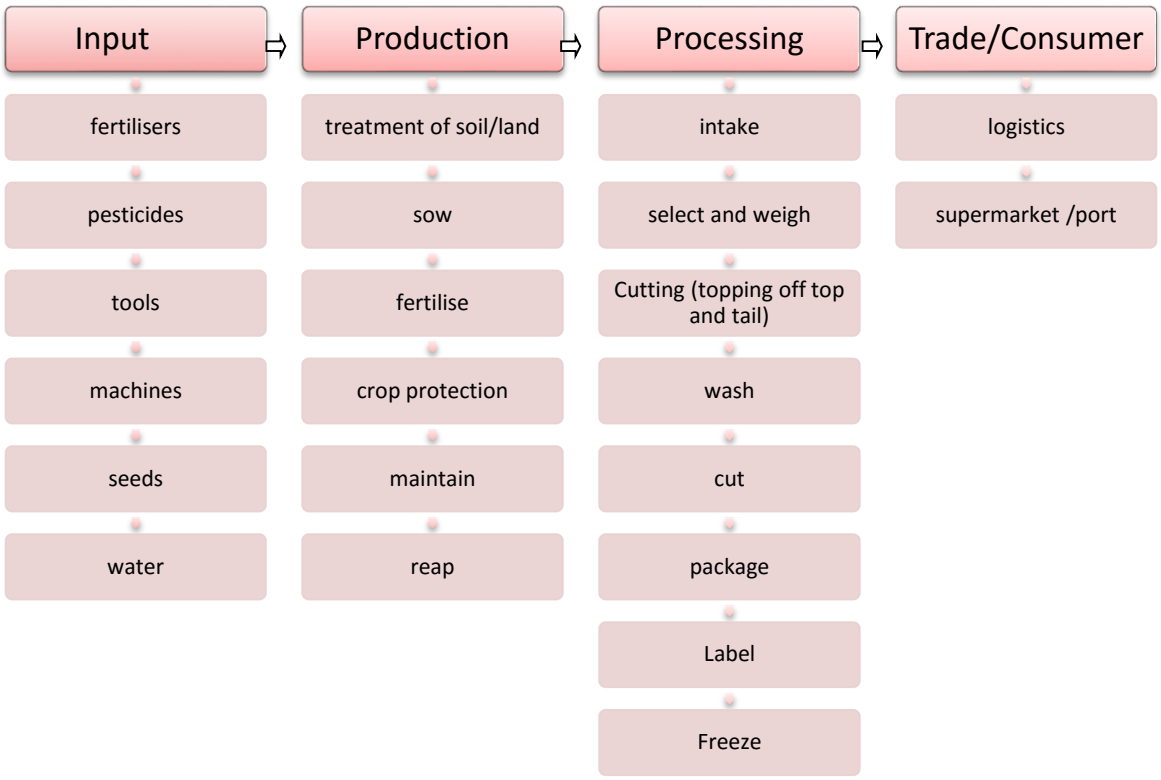
2. To elaborate and agree on an Action Plan to for the Yard long bean Value Chain.

The agenda is presented.

2.5 Activities per chain link

To identify the activities per chain link a sequence of activities is created in work groups per link and is marked with cards on the boards for each link. The results are then presented in a plenary session.

- Input
  - What are critical inputs
- Production
  - What is necessary to produce yard long beans? The treatment of the soil seen as one of the most critical steps.
- Processing
  - What are the processing steps and who is involved? There are more than seven processing steps.



2.6 Quality infrastructure and quality

To familiarize participants with the concepts of quality and quality infrastructure the film “QI in almost 5 minutes” is shown.

2.7 Quality

The concept of Quality is then further explored by asking the participants the open ended question

“What do you understand by quality of Yard Long Beans?”

The range of answers is recorded unto the cards as follows:

Healthy, should not make you ill, safe, reliable as a product, correct amount in package, meet standard requirements, standards have to be defined, green colour, has to meet expectations, fresh, attractive packaging, not treated with pesticides, nutritional and health value, the size and length of the beans after it is cut.

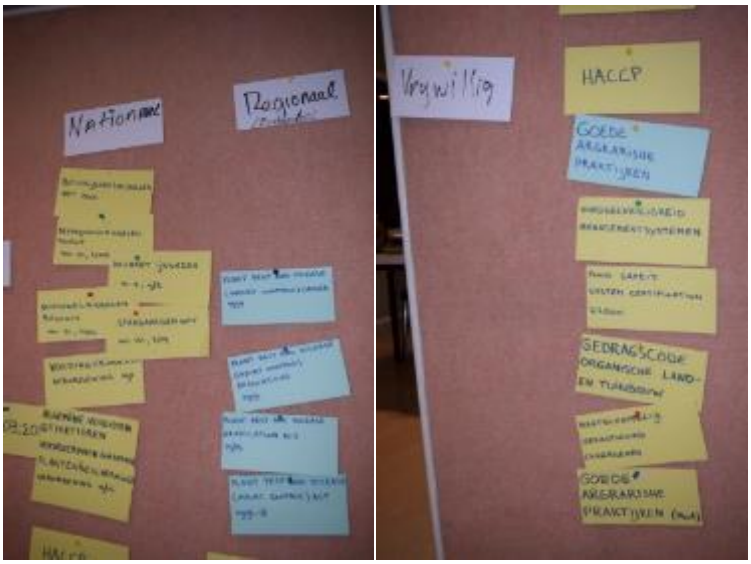
Each consumer has their requirements. ISO 90001 defines quality as the extent to which a set of characteristics meet requirements. This means that customer requirements must be taken into consideration in production of the Yard Long Beans; also because there is variety in the beans and different customers have different preferences.

Quality according to ISO 9000: The degree to which a set of characteristics meet requirements

2.8 Quality requirements

A brain storming session is carried out on relevant standards and technical regulations available for the chain's product and what standards apply to yard long beans from input to the final level.

- Cards are arranged according to
    - National technical regulations to be met (country of origin)
    - Mandatory national standards by Country of destination
    - Voluntary standards



2.9 Quality system in the country

Mr. Marvin Towikromo, Coordinator Implementation Unit of the Suriname Bureau of Standards (SSB) holds a presentation about Suriname's Quality Infrastructure. The presentation begins with an explanation of concepts used in the quality infrastructure model (standards, test labs, certification, metrology, calibration and accreditation) and a schematic view of a quality infrastructure model, after the current status of the quality infrastructure in Suriname was presented. In Suriname standards and technical guidelines fall under the responsibility SSB. So does metrology, though this is still in the legal phase. Certification is yet to be done. Testing laboratories are at the Bureau of Public Health and the Ministry of Agriculture, Animal Husbandry and Fisheries (MAAHF). Calibration is at the Dienst Waarborg en IJkwezen (service to gauge weights and measures). As for accreditation SBB functions as gateway.

In the discussion after the presentation it is noted that what we need in Suriname should not be limited to yard long beans only, but a public laboratory is necessary for all agricultural products.

2.10 Interview with buyer

An international buyer, Peter Dekker from the Netherlands, is interviewed via Skype to determine his quality requirements/ the quality requirements in the Netherlands.

Mr. Dekker indicates that:

a) The taste of the Surinamese yard long beans is very much appreciated in the Netherlands.
b) The quality of the fresh yard long beans is good upon arrival, but they rot very quickly.
c) He would prefer to grow, blanch and freeze the product in Suriname and package it before exporting it to the Netherlands.
d) There is no official certification necessary upon import; except for a health sanitation certificate for fresh produce. No HACCP and ISO certification is required. The health sanitation certificate is necessary to assure that there are no pest and diseases on the produce.
e) Residue testing is required.
f) The laboratory that does the residue testing does not have to be accredited. There can be random testing but it is not something that is done all the time.
g) The standards for the cooling chain are that it must be between -18 and -21 degrees Celsius, however there is no specific guideline when and how it must be cooled. Experience shows that the quality of the fresh product decreases quickly after arrival (after only one day in the supermarket). Thus product must be cooled before it arrives at the airport instead of at the airport.
h) The processing process (preparing, cutting, rinsing, blanching, cooling at -18 degrees, packaging and storing) should take place on the same day to ensure that the buyer receives the product the way he wants it.
i) There is preference and demand for the 500 grams per package frozen yard long beans.
j) As for packaging; paper or carton packaging are more appealing to consumers.
k) As for labelling; the nutritional value should be stated, the country of origin, whether it is grown on a farm or not, that in the process no child labour was used.
l) There is a lot of demand for organic grown yard long beans, but the marketing will take more time, because organic products are always more expensive and people are not always willing to pay the price.

2.11 Preparation Field work

The second day of the CALIDENA diagnostic workshop will begin with the field trip to a producer of yard long beans. To prepare for this field trip guidelines are given so that participants can observe the quality system related to production as well as to the environment. The participants are requested to look at their regulations, certifications, where tests are conducted and to establish what the gaps are and what can be done to improve?

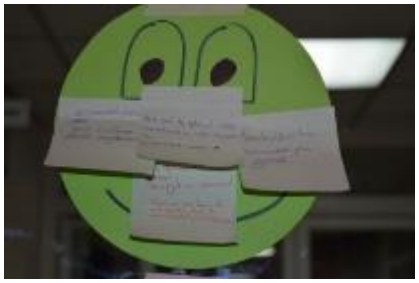
2.12 Evaluation of the day

Day one ends with the participants' evaluation of the day's proceedings. Their opinions are expressed as follows:

Neutral

I only just now understand the essence of this workshop
The presentations did not go smoothly
I am familiar with the theory of quality management and value chain
Not satisfied with the absence of important stakeholders like the MAAHF, farming associations, farmers, distributors, buyers

Good



Good venue
Good programme
Active participation of those present
Learned a lot of new things about yard long beans and everything that surrounds it
Very interesting

Bad

Low attendance

3 PROGRAM OF THE WORKSHOP – DAY 2

3.1 Field trip

Gopex International N.V.

The second day of the CALIDENA diagnostic workshop begins with the field trip to a producer and exporter of yard long beans. The producer, Varasur, grows fruits and vegetables among which yard long beans and sells his produce to Gopex International N.V., who exports predominantly to the Netherlands. Gopex International N.V. is the first distributor of fruits and vegetables to comply with HACCP standards. The certification means that the company's products comply with food safety requirements. [3]

[3] http://gopex-internationalnv.com/info

Unifood Suriname N.V.

Unifood Suriname N.V. is a farming and food producing company and is specialized in freezing and exporting (frozen) food products like frozen string beans, frozen and blocked cassava, frozen vegetarian Caribbean soup package, frozen vegetables and fresh vegetables to Western Europe. [4]

Machine used for the production of frozen long yard beans

Packed yard long beans

[4] http://www.21food.com/showroom/199645/aboutus/unifood-suriname-n.v..html

3.2 Analysis of the field trip

After lunch the participants take place in the same working groups as the previous day to discuss the field trip and, based on what has been observed and on information that has been retrieved on site, identify key issues in each link of the value chain.

One group is asked to identify issues concerning quality system, standards and technical regulations and one group to identify issues concerning conformity assessment, metrology and accreditation. More specifically the participants should assess the current situation, identify gaps or short comings and propose measures for improvement, making use of this matrix.

QI Aspect or Component	Current situation	Gaps	Proposals for improvement
Quality System or Good Practice System	Does any concept or handbook of this kind exist?	In management or of a technical nature?	
Standards + TR	Which standard or technical regulation applies?	Are there any regulatory gaps?	Which standard is lacking or needs to be improved?
Conformity assessment	What certification do you use? What kind of external audits do you undergo?	Is there a lack of certification? What limiting factors are there?	
Metrology	What measurements are carried out? How often? With traceability?	Is there a lack of laboratories for relevant tests? Is there a lack of skilled personnel or technical teams?	How can the usefulness of the calibrations be improved?
Accreditation / National or international recognition	Are you accredited? And do you know who accredited the conformity assessment bodies: • certifier • laboratory • Inspection body? Is it recognized within the country or abroad?		

Presentation group 1: quality, standards and regulations


The following table is a summary of the presentation and the cards as pinned on the board (picture above).

Subject	Current situation	Gaps/shortcomings	Proposals for improvement
Quality System or Good Practice System	Quality manual available	Management should ensure regular updating of quality manuals and technical manuals. Staff does not always fill in the required forms	Update manuals regularly
			Motivation of employees (to adhere to quality measures and consistently fill in required forms)
			Recruitment of good and dedicated personnel
Standards + Technical Regulations	HACCP certificated	In country regulations are lacking and use and implementation of standards are voluntary.	Finalise Global GAP
	ISO 22000 certified	Certification is very expensive. Not everyone can afford it and can thus compete with companies who can.	

Presentation group 2: conformity assessment, metrology and accreditation

The following table is a summary of the presentation.

	Current situation	Gaps/shortcomings	Proposals for improvement
Conformity assessment	No local certifying agencies Certification done by certification companies from abroad: DNV, YUM (KFC)	No certification companies in the country	Set up certification companies in the country
Testing laboratories & Calibration laboratories	– Soil test (MAAHF) – Water test (BOG once a year) – Calibration done by the producer	– No designated testing laboratories – No calibration laboratories	institutions also have to provide information and they have to make it known that they conduct certain test so that the company knows of their existence and the test that they provide
			In case of the soil test the institution doing the test has to give the farmer a warning if the soil does not have sufficient nutrients. So they also have to give advice about the nutrients that are lacking and not just state that the soil is lacking nutrients
			Suriname Laboratory complex (BOG, CELOS etc.)
Accreditation / National or international recognition	No accreditation institute		Accreditation by SSB

In an effort to better identify concrete action points, the participants are asked to evaluate the quality infrastructure of the visited company in light of that of the country. What is working well, what are the gaps and what is needed to address those gaps?

The participants indicate that what is missing are standards that can guide farmers from the onset, so that they are farming according to Good Agricultural Practises standards (GAP standards) and can more easily receive this certification. The same principle applies to quality systems. Provide a standard manual for yard long beans. Then there need to be inspectors to evaluate the use of this standard.

In summary the participants have the following proposals

- Develop GAP standard for agriculture
- Develop a manual for farmers
- Establish a unit or persons to disseminate information to farmers and guide them to where they can do the necessary laboratory tests. To provide a list and identify a unit who will be responsible to disseminate that information and give recommendations to farmers.
- There is a need for more information sharing and brainstorming in the sector

3.3 Evaluation of the day

For the day two evaluation participants are asked:

1. What was the most surprising thing about the day for me?
2. What questions do I have?

The most surprising things are written on pink post it notes and the questions on blue post it notes.

Most surprising (pink post its)

- The mere existence of a company like Gopex International N.V.
- Flaws within Gopex that we were not aware of
- Gopex International N.V. as an example company
- The visit to Unifood N.V. and to experience the process.
- Some shortcomings we did not even notice → ISO 22000 audit ☺

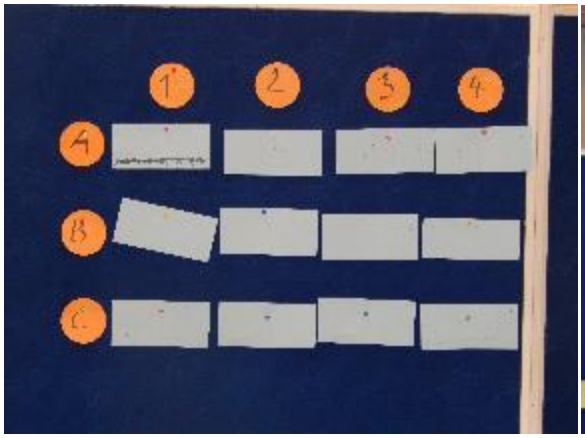
Questions (blue post its)

- Why are students from ADEK (Anton de Kom University) and PTC (Polytechnical college) not involved in developing and realising goals?
- Are we going to be able to modify all this?
- To which extent can PTB assist us?
- Would like information about other vegetables like cabbage, amsoi, taro leaf etc. etc.
- Timetable for GAP formulation
- So much room for improvement, but how do we continue?
- How do we make farmers aware of food safety when cultivating crops?

4 PROGRAM OF THE WORKSHOP – DAY 3

4.1 Calidena Quiz

To assess the knowledge of the participants on what has been discussed the past two days they are given a quiz about concepts and terminology used during the workshop; the " Calidena quiz".

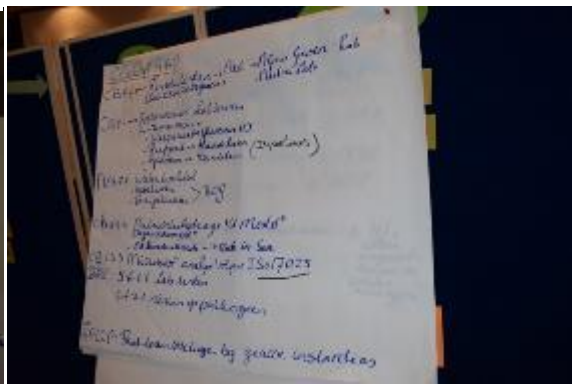


4.2 Review of Global GAP standards for laboratory tests and calibration

Work groups are organized and the participants are requested to identify:

- What laboratory tests and calibration are required by GLOBALGAP
- Is this possible in Suriname

The groups identify a number of standards where testing is required.
The information is written on flip over sheets and presented by a participant of each group.




This table captures what is written on the flip over sheets

GlobalGAP	Sort of laboratory test/calibration	Possible in Suriname and which institute
CB 5.5.3	Analysis of organic fertiliser	No
CB 6.3.1	Analysis irrigation water	Bureau of Public Health (BOG)
CB 6.3.5	Microbiological analyses according to ISO 17025	BOG?
CB 8.6.6	Residue Analysis (ISO 17025)	BOG?
CB 9.1	Calibration of equipment: – Thermometers – Scales – Knapsack sprayer	 – Service for Weights and measures – Distributors
FV 5.5.2	calibration of measuring equipment and thermometers	Ministry of Trade and Industry (only for weighing equipment and volume measures)
FV 5.5.9		No
FV 5.7.1	– washing water	BOG
FV 5.7.3	– water analysis according to ISO 17025	BOG?

Standard	Sort of laboratory test/calibration	Possible in Suriname and which institute
BRC 5.6.1.1	Laboratory tests at accredited institutes	No
HACCP[5]	Product testing/testing at accredited institutes	No

More in detail the following exercise is performed with the participants.

- The participants first study the different standards
- Identify a number of standards where testing is required
- Then check whether the testing is possible in Suriname, whether it is done and/or whether it is done elsewhere and also note other remarks they have.

[5] http://www.foodsafetymanagement.info/nl/home/61/

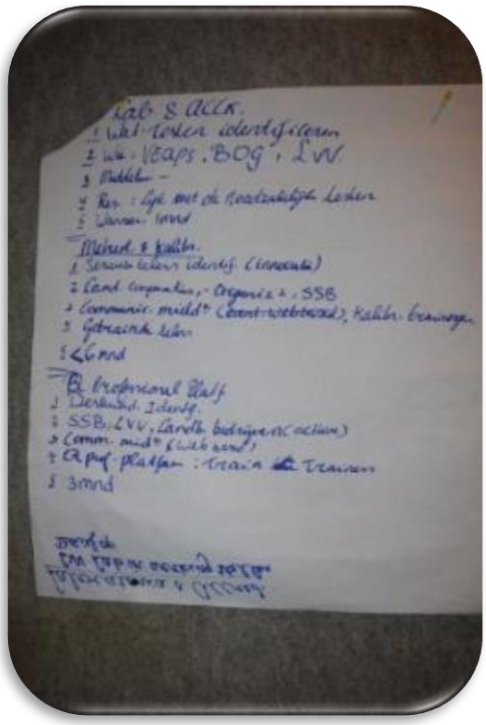
GLOBALGAP standard no.	Control point	Compliance criteria
CB. 5.5.3	Has account been taken of the nutrient contribution of organic fertilizer applications?	An analysis is carried out or recognized standard values are used, which takes into account the contents of N·P·K nutrients in organic fertilizer applied.
CB. 6.3.1	Has the use of untreated sewage water for irrigation/ fertigation been banned?	Untreated sewage water is not used for irrigation/ fertigation. Where treated sewage water or reclaimed water is used, water quality complies with the WHO published Guidelines for the Safe Use of Wastewater and Excreta in Agriculture and Aquaculture 1989. Also, when there is doubt if water is coming from a possibly polluted source (i.e. because of a village upstream, etc.) the farmer has to demonstrate through analysis that the water complies with the WHO guideline requirements or the local legislation for irrigation water. See Table 3 in Annex AF.1 for Risk Assessments.
CB. 6.3.5	Does a suitable laboratory carry out the analysis?	Analysis results from appropriate laboratories, capable of performing microbiological analyses up to ISO 17025 level, or equivalent standard, should be available.
CB 8.6.6	Laboratory used for residue testing is accredited by a competent national authority to ISO 17025 or equivalent standard?	There is clear documented evidence (on letterhead, copies of accreditations, etc.) that the laboratories used for plant protection product residue analysis have been accredited, or are in the process of accreditation to the applicable scope by a competent national authority to ISO 17025 or an equivalent standard. In all cases, the laboratories must show evidence of participation in proficiency tests (e.g. FAPAS must be available). See Annex CB.5 Residue Analysis.
CB 9.1	Are equipment sensitive to food safety and the environment (e.g. fertilizer spreaders, plant protection product sprayers, irrigation systems, equipment used for weighing and temperature control) routinely verified and, where applicable, calibrated at least annually?	The equipment is kept in a good state of repair with documented evidence of up-to-date maintenance sheets for all repairs, oil changes, etc. undertaken. For example: Fertilizer spreader: There must, as a minimum, be documented records stating that the verification of calibration has been carried out by a specialized company, supplier of fertilization equipment or by the technically responsible person of the farm within the last 12 month. Plant protection product sprayers: See Annex CB.7 for guidance on compliance with visual inspection and functional tests of application equipment. The plant protection product application machinery (automatic and non-automatic) has been verified for correct operation within the last 12 months and this is certified or documented either by participation in an official scheme (where it exists) or by having been carried out by a person who can demonstrate their competence.
FV. 5.7.1	Is the source of water used for final product washing potable or declared suitable by the competent authorities?	The water has been declared suitable by the competent authorities and/or within the last 12 months a water analysis has been carried out at the point of entry into the washing machinery. The levels of the parameters analyzed are within accepted WHO thresholds or are accepted as safe for the food industry by the competent authorities.
FV. 5.7.3	Is the laboratory carrying out the water analysis a suitable one?	The water analysis for the product washing is undertaken by a laboratory currently accredited to ISO 17025 or its national equivalent or that can demonstrate via documentation that it is in the process of gaining accreditation.

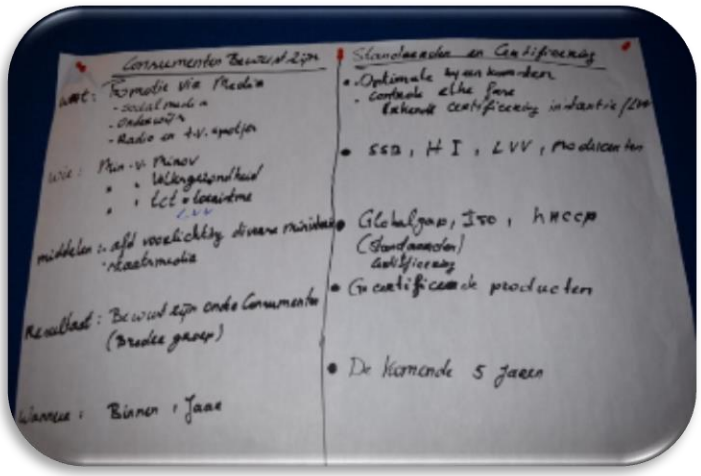
Other standards:

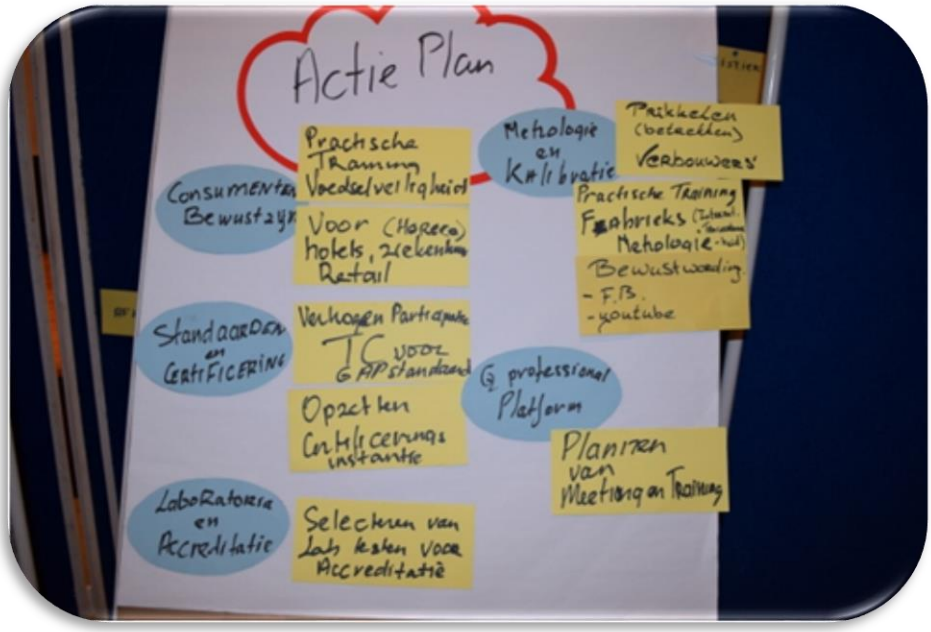
BRC 5.6.2.3	Laboratory tests	Should the company perform or outsource analyses that are important for the product safety or for legal matters, than it or the other company must possess a recognized accreditation for laboratories or they must work according to standards and norms of ISO/IEC 17025. Documented grounds must be available if no accredited methods are used.
HACCP 5.8.1 version JUNI 2012	Monitoring and measuring	Measurements or product tests by third parties are only accepted if these parties meet the relevant quality standards as put in ISO 17025, ISO 17020 or equivalent European or national standards.

4.3 Action plan

From the results of the gap analysis the groups work on an action plan with a time frame in which they are asked to identify what (gap) is to be done, how, by whom and when and what the result should be.







What	How	Who	When	Result
Basic training in food safety for the hospitality industry and the retail	Submit proposal for funding at international donor (e.g. IICA) Organize and execute training	SSB/VEAPS/ASFA/Farmers association Kwatta	November 2015	A group of food handlers trained in basic food safety
Increased participation in the Technical Committee for the GAP Standards	Where applicable send letter to supervisors of workshop participants to elect someone to take place in the technical committee	SSB	October 15th 2015	More members for the LOCAL GAP Technical Committee
Set up certification body	Submit proposal for funding at international donor Hire expert in setting up certification body	SSB	2017	Certification body
Practical training Fabric Metrology	Submit proposal for funding at international donor (e.g. PTB) Organize and execute training	SSB/VEAPS/ Farmers association Kwatta	November 2016	A group of farmers trained in basic metrology
Awareness raising about metrology and calibration via Facebook and You Tube	Submit proposal for funding at international donor (e.g. PTB) Identify media company to produce video	SSB	December 2015	Video about metrology and calibration in SrananTongo (local language)
Select laboratory tests for accreditation	Identify a list of relevant test according to GLOBALGAP standard	VEAPS	October 30th 2015	List of microbiological and chemical tests for accreditation
Set up a Quality professional platform	Identify professionals to participate in the platform Organize and execute meetings	SSB/VEAPS/ASFA/Farmers association Kwatta	November 30th 2015	Regular meetings of quality professionals

4.4 Closing of the event

The director of the SSB, Mrs, Ingrid De Bel-Simson, stresses that it is important not to lose momentum and thus organisations will be visited individually and arrangements will be made to work in a structured manner.

A technical commission will be formed comprised of representatives of different organisations to further develop and implement the action plan and first and foremost start with the development of the LOCAL GAP. All organisations will be requested to elect two persons to take place in this commission. An official letter will be send to the person(s) in charge at each organisation.

4.5 Final evaluation of the event

To evaluate the event evaluation forms are handed out to participants on which the participants can (anonymously) give their opinion on the content, methodology, facilitators, course material, location and consumptions.

Content

- 89% of the participants indicated that the workshop met their expectations
  78% indicated that they can use the knowledge they gained in their work

Methodology

- 66% (2/3) said that the assistance from the facilitators was effective and
- 34% said the techniques used were very effective
- 89% said that the conditions that were necessary to contribute to a better understanding of the workshop material were good to very good
- 67% stated that the level of participation was good, 11% said it was very good, but also 11% stated that it was fair, while 11% stated that is was bad.

Facilitators

- 89% stated that the workshop material was clearly brought and the content was comprehensible. There was enough attention from the facilitators. All participants except for one, who said the level of attention was fair, indicated that the level of attention was good to very good.

Course material

- 78% stated that the course material was good in terms of quantity and usefulness.

Location/consumption

- 56% stated that the venue was very good and 33% said it was fair.
- 56% stated that the location of the venue was very good, 22% said that it was good and 22% said it was fair.
- 50% said that the consumptions during the break were good

Overall the participants would like the workshops to continue and expanded with subjects like meat, fish and other vegetables.

5 RECOMMENDATIONS

The facilitator strongly recommends to take the following into account in order to successfully execute the action plan:

1. The follow-up committee should be formed as soon as possible. Identifying stakeholders to participate in the committee who are truly devoted. Preferably two members per organisation.
2. This committee should work out the action plan in more detail. Identifying who is responsible for the coordination of the implementation of the action plan. Each organisation or a member of an organisation should be charged with the delivery of one or more key activities, as set out in the action plan.
3. The coordinator is responsible for the day-to-day management of the project and supports the activities of each members if needed.
4. The committee should identify the resources required to implement the action plan and who can/should supply these resources.
5. The committee should meet regularly to monitor the progress of the execution of the action plan.
6. A meeting should be held with representatives of Ministry of Trade and Industry, Ministry of Agriculture and the Ministry of Health to present the action plan and discuss how they can support this project but also to discuss how they can support the mid and long term plans:
    - drafting and adopting a GAP standard,
    - drafting and adopting a specification for the yard long beans,
    - developing a GAP manual,
    - certifying farms who comply with the GAP standards,
    - replicating the CALIDENA approach to other promising products.

6 APPENDICES

6.1 Appendix Workshop Attendees

SURNAME	NAME	ORGANIZATION
Lieveld-Penalver	Gladys	Bureau Public Health
Mangre	Malti	Bureau Public Health
Van Sauers	Alice	Ministry of Agriculture
Bisessar	Radjen	Gopex International
Orie	Prashanti	Varasur
Dilloe-Goeptar	Hemwatie	HJ de Vries Agro
Gopal	Bisnoe	Varasur/ Gopex International
Taus	Umar	Unifood Suriname NV
Sanchit	Riekhnath	VEAPS
Adipi	Denson	Marriott hotel – purchasing manager
Kasdjo	Michael	Marriott hotel
Rakhan	Ravinderkumar	Ministry of Trade
Paal	Sergio	Ministry of Trade
De Bel- Simson	Ingrid	SSB
Wijngaarde	Jenna	Capricorn Projekt BV
Burnham	Latoya	CROSQ
Hilaire	Janice	CROSQ
Harmes-Liedtke	Ulrich	Mesopartner
Towikromo	Marvin	SSB
Mohan	Roshni	SSB

6.2 Appendix PowerPoint Presentation National quality system

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"Kwaliteit infrastructuur"

(Marvin Towikromo / Coordinator Implementatie Unit)

Paramaribo, september 2015

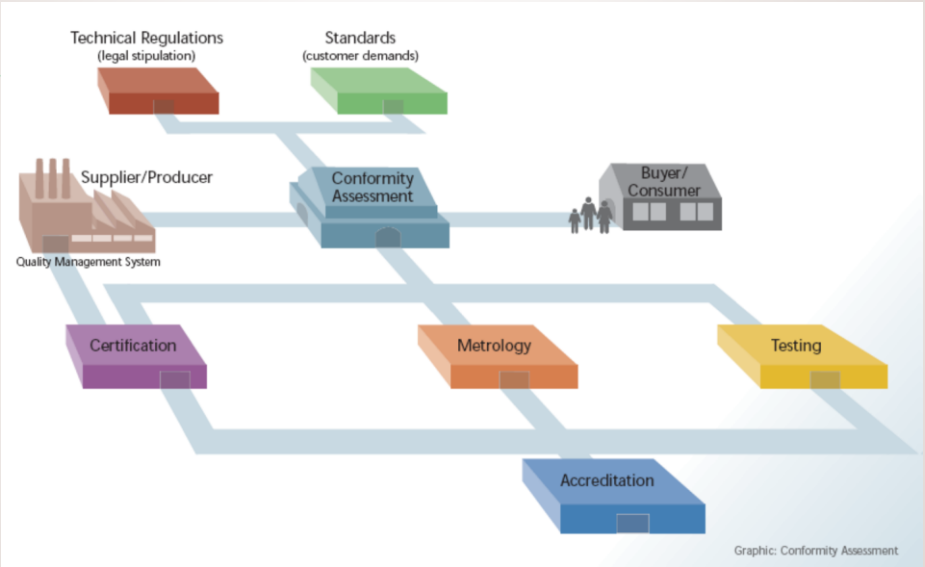
Opbouw Presentatie

- Kwaliteit Infrastructuur model
- Kwaliteit infrastructuur in Suriname

Kwaliteit Infrastructuur model

- **Standaarden**, Technische Voorschriften (Eisen)
- **Test labs** (voert controle uit middels testen)
- **Certificering** (Bewijs dat men voldoet aan de eisen)
- **Metrologie** (Studie van metingen)
- **Kalibratie** (Nauwkeurigheid van meetinstrumenten)
- **Accreditatie** (Competentie erkenning van laboratoria en certificeringfaciliteiten)

Schematische weergave Kwaliteit Infrastructuur model



Kwaliteit Infrastructuur in Suriname

- Standaarden en Technische Voorschriften (SSB)
- Test labs: onder andere BOG (Public Health)en LVV (Min. Agriculture)
- Certificering (moet nog opgepakt worden)
- Metrologie (SSB in juridische fase)
- Kalibratie (Dienst Waarborg en IJkwezen)
- Accreditatie (SSB als doorgeefluik)

"Dank voor uw aandacht"

(Marvin Towikromo / Coordinator Implementatie Unit)

Paramaribo, september 2015

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