National benchmarking against GLOBALGAP

Case studies of Good Agricultural Practices in Kenya, Malaysia, Mexico and Chile

Olga van der Valk
Joop van der Roest (Institute of Food Safety Rikilt)

Report 2008-079
April 2009
Project code 40432
LEI Wageningen UR, The Hague

LEI conducts research in the following areas:

- International policy
- Development issues
- Consumers and supply chains
- Sectors and enterprises
- Environment, nature and landscape
- Rural economy and use of space

This report is part of the research area International policy.

Photo: Olga van der Valk

National benchmarking against GLOBALGAP; Case studies of Good Agricultural Practices in Kenya, Malaysia, Mexico and Chile

Olga van der Valk and Joop van der Roest (RIKILT)

Report 2008-079
ISBN/EAN: 978-90-8615-310-7
Price € 18,50 (including 6% VAT)
67 p., fig., tab., app.

This desk study examines the experiences and lessons learned from four case studies of countries aiming at the GLOBALGAP benchmarking procedure for national Good Agricultural Practices, namely Chile, Kenya, Malaysia, and Mexico. Aspects that determine the origin and character of the benchmarking process are the current and future export markets of each country; the ownership of the National GAP Schemes, that is, government or private sector. Government-led GAP initiatives are part of strategic sector wide policies that includes legislation. Private sector-led food quality systems tend to be more directed at compliance with international standards. In all the country cases certification is voluntary, but third-party certification tends enhance international credibility.

Orders
+31.70-3358330
publicatie.lei@wur.nl

LEI is ISO 9000 certified.

Index

Preface

This report describes the results of a desk study on the benchmarking process of National Certification Schemes for food with internationally recognised standards such as the GLOBALGAP standards for fresh fruits and vegetables. The desk study formed part of the programme 'Thai-Dutch Partnershipping for safe and transparent fresh fruits and vegetable supply chains 2006-2008', implemented by Wageningen University in close collaboration with the Thai Department of Agriculture and with contributions by The Food and Consumer Product Safety Authority of the Netherlands (VWA), financed by the Dutch Ministry of Agriculture, Nature and Food Safety (LNV).

The study was done in June 2007. For the present edition information and relevant time schedules were updated to present.

The researchers benefited from the kind collaboration of previous and current staff of FPEAK (Kenya) and staff of México Calidad Suprema (Mexico).

Prof Dr R.B.M. Huirne
Director General LEI Wageningen UR

Executive summary

The current report describes the experiences and lessons learned from four case studies of countries aiming at the GLOBALGAP[1] benchmarking procedure for national Good Agricultural Practices, namely Chile, Kenya, Malaysia, and Mexico. These cases were examined for lessons to learn for the Thai national Good Agricultural Practices. Four questions were used to gain insight into the specific conditions of the national context in which each country set out to have their national Good Agricultural Practices and related certification schemes accredited by GLOBALGAP.

Consequently, the four country cases were analysed for: (1) current and desired destination markets; (2) Characteristics of existing standards and food Quality Systems, and their relation with national legislation; (3) the owner(s) of the benchmarked GAP certification scheme and relevant stakeholders; and (4) milestones in the flowchart of the benchmarking process.

The GLOBALGAP benchmarking procedure consists of several steps where a Technical Assessment of the applicant documents is combined with a Witness Audit of the certification process to make sure that the National Scheme achieves a similar output as a GLOBALGAP audit. In December 2008, GLOBALGAP listed 18 approved standards, of which 9 fully benchmarked (13 in fruits and vegetables).

Destination markets

Regarding destination markets, Kenya aimed at consolidating its already developed market in the European Union, as did Chile. As the European and USA destination markets are of equal importance to Chile, this has made it take lead in homologising the requirements of both markets for benchmarking its National GAP standards.

Mexico on the other hand, entered the benchmarking procedure aiming at developing their exports into the European Union.

[1] *GLOBALGAP:* Programme by the Euro-Retailer Produce Working group (EUREP) to develop global certification of Good Agricultural Practices (GAP). Mayor principles in the regulations relate to food safety; environmental protection; occupational health, safety and welfare; and animal welfare. In September 2007, EUREPGAP changed its name to GLOBALGAP.

Malaysia has ASEAN countries as natural markets. It has not yet benchmarked its standards with GLOBALGAP, though it is in process of homologation of developed GAP standards with other ASEAN countries.

Standards and national legislation

Mexico is the only country to have included product intrinsic quality aspects in the GAP standards (appearance of the product, defects, etc.). Consequently, the country has only product-specific and no Generic GAP Standards, which poses problems for multi-crop farmers who in that case need multiple certification. In Malaysia, the Federal Agricultural Marketing Authority (FAMA) also certifies product-dependant quality aspects that allow certified market partners to carry the 'Malaysia's Best' logo.

The (international) precedents that promoted the development of national GAP schemes, are in accordance with the importance of their export markets: Kenya acted on the food scandals that occurred in Europe in the '90s; Mexico on the other hand on the Bioterrorism Act and the Food Safety Initiative-USA.

Ownership of certification scheme and standards

The main distinction between the ownership of different National GAP Schemes is its government-led or private sector-led character.

In Mexico and Malaysia the national GAP schemes are initiated and managed by governmental bodies and form part of a larger certification scheme for all the phases of the supply chain. The government-led GAP schemes of Malaysia and Mexico form part of a quality brand audited throughout the supply chain (Malaysia's Best and Mexico Calidad Suprema respectively) and promoted in the domestic market.

ChileGAP and KenyaGAP have been an initiative by stakeholders from the private sector. It is exclusively directed at the beginning of the supply chain, no brand or quality mark is developed. In Chile and Kenya, contrary to Mexico and Malaysia, the GAP programme was developed by large producers (bottom up) and then endorsed by the Governments.

Milestones in the benchmarking flow chart

Benchmarking procedures are recent: worldwide, Chile was the first to enter the benchmarking procedure in 2002.

Three national GAP schemes are now accredited by GLOBALGAP. ChileGAP and MexicoGAP are fully approved against the newest version of the GLOBALGAP IFA standards (v3.0-1sept07). KenyaGAP was fully approved in Au-

gust 2007, but in December 2008 still remained in the phase of Independent Technical Review for accreditation against the latest GLOBALGAP version 3.0 standards for Fruits and Vegetables and Flowers and Ornamentals.

Malaysia, after the preliminary studies, never entered the benchmarking procedure.

In all three benchmarking procedures the phase of preparation of the documents took less time than review of procedures by GLOBALGAP. Mexico additionally distinguishes a third phase of procedures implementation (pre-audits).

General conclusions

All the cases show that the benchmarking procedure has been implemented as a marketing instrument to expand export market. Benchmarking is used to get more credibility in markets targeted for expansion. The quest for credibility from market partners explains the importance of independent third party certification. Malaysia was the only case in which the quality assurance system was set up as a response to challenges in the development of the agricultural sector - increase productivity, use of natural resources, food security).

The precise link between the GLOBALGAP procedure and (the development of) national legislation was not subject to the study. In two cases (Mexico and Kenya), food scandals in destination countries preceded the GLOBALGAP procedures. Chile, Kenya and Mexico adjusted national legislation using the food legislation of their main market as reference.

No conclusions can be drawn on whether adaptation of standards to smallholder's agricultural practices influences the benchmarking procedures. It would seem that the smallholders' export market position is more decisive for international accreditation.

Lessons learned for Thailand

For Thailand, the gradual, step-like and multi-tier approach as found in the Malaysia case is interesting, particularly the experiences with the gradual convergence of the more nationally oriented SALM with the MS-GAP initiative. For Thailand this experience can be used in the process of homogenising Thai Q-GAP - initiated by the Thai government - and ThaiGAP - initiated by the Thai private exporting sector.

The cases show that countries enter benchmarking procedures with GLOBALGAP in order to consolidate or significantly increase market share in Europe. Considering main destination markets for fresh fruits and vegetables,

for Thailand homologation of GAP with other ASEAN countries might be preferred over benchmarking with GLOBALGAP
Finally, from the cases studied it becomes apparent that government-led GAP initiatives are part of strategic sector-wide policies that include legislation. Private-sector led food quality systems tend to be more directed at compliance with international standards. In all cases compliance is voluntary.

After the desk study, on 15 September 2007, the Thai government formally announced to enter the GLOBALGAP benchmarking procedure for the THAIGAP standards as developed by the exporting private sector. The Thai government reiterated its support for GLOBALGAP standards 'as the most comprehensive'.

In hindsight, it is the quality systems that tend to be directed at compliance with international standards at destination markets that will seek benchmarking by GLOBALGAP. Independent verification is deemed important.

1 Introduction

The current report describes the experiences and lessons learned from four case studies of countries having entered the GLOBALGAP[1] benchmarking procedure, namely Chile, Kenya, Malaysia, and Mexico. Though China was among the countries first selected for the desk study, it proved to be difficult to obtain sufficient information about the benchmarking process in China to merit inclusion in the report.

After conclusion of the desk study in June 2007, EUREPGAP changed its name from EUREPGAP to GLOBALGAP in December 2007. We have opted to change all references accordingly, to facilitate reading and avoid confusions.

The purpose of the analysis and this document, as was discussed and agreed upon with Thai officials, is to learn from the experiences with benchmarking of standards in other countries and to make these lessons learned available for the at the time to be started Thai benchmarking process of the GAP Q-mark.

There are a lot of studies on the implementation of Good Agricultural Practices (GAP) available on the Internet. Case studies can also be found in the presentations made by participants of international workshops on GAP. Though these documents frequently mention benchmarking of GLOBALGAP by harmonising local practices to GLOBALGAP standards, little research is available on the benchmarking process itself, in which the involvement and commitment of stakeholders and internal/external auditing of the certification system are important elements for success.

The report systematically describes the benchmarking procedures in selected countries (case studies) by using the following questions:

1. How do the current export destination markets relate to entering the GLOBALGAP benchmarking process?
2. How do the benchmarked Good Agricultural Practices (GAP) relate to existing national standards and Food Quality Systems and how did they relate to national legislation before entering the benchmarking process?

[1] *GLOBALGAP:* Programme by the Euro-Retailer Produce Working group to develop global certification of Good Agricultural Practices (GAP). In 2005 it had 275 retailer members worldwide and more than 35,000 producers registered in 62 countries. Mayor principles in the regulations relate to food safety, environmental protection, occupational health, safety and welfare, and animal welfare.

3. Who is owner of the national standards that are benchmarked against GLOBALGAP? Which stakeholders were involved in the benchmarking process? What institutional structure exists or was set up to manage and implement the standards?
4. How did the benchmarking process take place in time? Which steps were taken, when and by whom?

After the description of the case studies, a short overview will be given, comparing the different countries in their benchmarking procedures. Finally, conclusions will be drawn on the benefits of GLOBALGAP benchmarking and challenges for the future.

A list of abbreviations used in the report can be found in appendix 1.

2 GLOBALGAP and benchmarking

GLOBALGAP has now encroached the global partnership for safe and sustainable agriculture. One of its core objectives is the recognition of other farm assurance schemes via benchmarking. Therefore the GLOBALGAP Technical and Standards Committee (TSC) Fruit and Vegetables has officially approved the benchmarking procedure, in order to improve perceived and actual integrity and transparency of the system.

The guiding principles of GLOBALGAP state among others that the system is based on HACCP principles; risks are reduced by implementing Good Agricultural Practice and the implementation is complementary to regulatory approach.

The protocol for fresh produce enhances food safety, environmental issues, social responsibility and complaint forms. The fruits and vegetables protocol is compiled of a total of 210 control points divided over 47 major musts, 98 minor musts and 65 recommended control points.

In December 2007 the global acceptability stretched to:

- 38 retail and food service members
- 81,163 certified farms in 89 countries (and an estimated 91,000 certified farms as per July 2008, benchmarked schemes included)
- 120 approved certification bodies in over 40 countries (an estimated 134 as per August 2008)
- 18 approved standards, of which 9 fully benchmarked (13 in fruits and vegetables). In April 2008, new applicants were: CHINAGAP, THAIGAP, FLOR VERDE (Colombia) and TRIPLO A (Brazil).

According to GLOBALGAP (http://www.globalgap.org) the benchmarking process 'consists of a one-to-one comparison principle where private or public schemes existing in different regions or countries are contrasted with GLOBALGAP. These schemes usually address certain requirements identified for the particular geographical locations and marketplace. They also reflect the local regulations, needs and cultures and often have brand image attached to them. '

Since the introduction of the GLOBALGAP IFA Version 3.0 the benchmarking process offers two categories for recognition of equivalent schemes. On the one hand the full benchmark (FB) category requires a separate ISO 65 accreditation for the Certification Bodies of a Full Benchmarked Scheme. On the other hand, the 'Approved Modified Checklist' (AMC) category requires the benchmark

exercise only for the applicants' standards against the GLOBALGAP Control Point and Compliance Criteria (CPCC).

During the process of full benchmarking an applicant scheme is compared to both GLOBALGAP normative documents, consisting of a) the General Regulations of a particular product chosen; b) the Control Points and Compliance Criteria and c) the General Regulations of the particular product scope chosen for equivalence. For the benchmarking process the integrity of the applicant Standard is tested and verified against the GLOBALGAP norms on food safety, social welfare, environmental protection etc. In addition the total operation and certification procedures of the applicant Scheme are audited and revised against the General Regulations to verify an equivalent audit outcome as well as to control critical integrity issues like auditor competencies, audit frequencies, non conformity classifications and sanctioning rules. As said before, the applicant certification rules must be based on ISO 65 requirements. Both assessments (standards and audit procedures) are carried out by independent organisations with long-term experience in ISO 65 accreditation, the German Accreditation Body (DAP) and the Joint Accreditation System for Australia and New Zealand (JAS ANZ). Benchmarked National Schemes farms and CBs are checked annually by GLOBALGAP integrity surveillance audits.

The 'decision tree' describing the different and subsequent steps in the benchmarking procedures can be found in appendix 2.
In the words of GLOBALGAP, a benchmarking scheme has the following basic key elements:

- It allows quality assurance schemes to be benchmarked to the GLOBALGAP Standard;
- It allows National GAP schemes to be benchmarked;
- It establishes a global level playing field;
- It facilitates global trade;
- It preserves cultural and regional identity;
- It continues to act local.

The principal requirements of benchmarking are:

- Transparent criteria and rules;
- Independent technical assessment (by the German Accreditation Body (DAP) and the Joint Accreditation System for Australia and New Zealand (JAS ANZ).
- Stakeholder involvement;
- Document & field assessment;
- Regular surveillance;

- Complaint procedure.

The benchmarking system procedure is described in a GLOBALGAP document version 1.2-June 2005; which is downloadable from www.globalgap.nl.[1]

Part IV benchmarking (option 3 & 4) is issued in September 2007 (version 3.0) and deals with recent changes in benchmarking categories and procedures.

Furthermore benchmarking Cross-Reference checklists; general regulations and crop specific documents are available (version 3.0-2 September 2007). All above mentioned documents can be downloaded from www.globalgap.org

[1] Date of website accession: 11 December, 2008.

3 Country case Malaysia

The country of Malaysia consists of two separate regions (West and East) separated by the South China Sea. The total land area amounts to 340,000 km^2. The population had reached a total of 25.6 million in 2004 and continues to grow at a rate of 2% per annum.

Food commodities accounted for about 16% of the total agriculture exports in 2005. In terms of land use, fresh fruit and vegetables, arable corps and flowers account for only 12.5% as compared to oil palm plantations coverage of 63.4%. It is the target of the Malaysian government to attain an average annual growing rate of 35.5% for fruit export from 2006 to 2011. This will be done through enhancing productivity, which includes the introduction in 2002 of GAP scheme known as Skim Akreditasi Ladang Malaysia (SALM) or in English the Farm Accreditation Scheme of Malaysia (Chen, 2006).

At present there are about 5,000 farms involved in growing fruit and vegetables in Malaysia. The average farm size of fruit and vegetable industry falls in the category smallholdings, whose area is less than 40 ha. In table 3.1 a summary of average farm size of ASEAN countries is given.

Table 3.1	**Average farm size of fruit and vegetable industry of ASEAN countries (2005)**
Country	**Average farm size (ha)**
Malaysia	0.3 - 3.0
Indonesia	0.1 - 2.0
Thailand	0.05 - 0.6
Source: Robert and Menon (2005).	

The Malaysian fruit and vegetable industry is small and fragmented. Tropical fruits are widely grown in mixed or single fruit orchards. Vegetables are grown in the highlands whereas tropical fruits and vegetables are grown in the lowlands.

To increase local fruit and vegetable production to meet domestic demand and exports, the government has provided various investment incentives to the private sector. Priority will be given to the promotion of large-scale fruit and vegetable cultivation.

3.1 Current export destination markets

Over the years a steady increase of import of fruit and vegetables into Malaysia has been noted, which is partly due to the expansion of the supermarket sector at the expense of the traditional wet markets. There is an increasing demand for high quality-high value imported fruit and vegetables, out of season fruit and vegetables and fruit and vegetables that are not grown locally.

So despite the improvement of self-sufficiency levels of fruit and vegetables (see table 3.2), the trade balance has continued to widen in favour of imports. Nevertheless, in spite of the widening of the difference between exports and imports, the total value of trade in both fruits and vegetables has been increasing substantially over the last 5 years (see appendix 3 for figures on 2000-2004).

Table 3.2 Self-sufficiency levels of fruit and vegetables in Malaysia in %

	1995	2000	2005 a)
Fruits	88.9	91.3	98.6
Vegetables	71.6	88.5	95.6

a) Estimated.
Source: Eighth Malaysian Plan (2001-2005).

In 2004, Malaysian *fruit* export was destined for almost 52% to other ASEAN countries (Brunei, Indonesia, Myanmar, Philippines, Singapore and Vietnam). Hong Kong was good for 26% of total fruit export. The EU totals a mere 11% of fruit export, of which 75 % goes to the Netherlands (carambola). Of the ASEAN trade, Singapore accounts for about 85% of export value, mainly papaya and melons.

In 2004 the Malaysian *vegetable* export was destined for at least 80-90% to other ASEAN[1] countries, this is likely because of the relative short distance and the short shelf life of vegetables in comparison with fruit. Singapore accounts for about 80% of the ASEAN trade, but this may include re-export from Singapore to other destinations. Hong Kong and the EU account for only 0.10-0.25% of trade.

The Farm Accreditation Scheme of Malaysia (SALM) is accepted in the main market of Malaysia for fruits and vegetables, Singapore, through a government

[1] ASEAN countries: Brunei, Indonesia, Myanmar, Philippines, Singapore, Vietnam;
EU = European Union (25 countries).

bilateral arrangement. This means that consignments of produce from SALM-certified farms are sampled and allowed to proceed to retail distribution centres without detention at the Customs. Conversely, consignments of produce from non-SALM-certified farms are held at the point of entry until pesticide residue analysis results of produce are available.

The export figures for fruit and vegetables exports, 2000-2004, as well as related graphics can be found in appendix 3, table A3.2, table A3.3, figure A3.1 and figure A3.2.

3.2 The Food Quality System to be benchmarked against GLOBALGAP

The Malaysian government has promulgated several National Agricultural Policies (NAP), the first one in 1984. At first the objective of the NAP was to take advantage of available arable land and use this for export crops, in particular, the development of oil palm plantations. A second revision (NAP2) was introduced focussing on productivity, efficiency and competitiveness of the agricultural sector for the period 1992-2010.

As a consequence of the new issues in agricultural trade, the government formulated a strategic agricultural development master plan (NAP3) for 1998-2010, designed to maximise income through optimal utilisation of resources of this sector. The objectives of NAP3 are to:

- Enhance food security;
- Increase productivity and competitiveness of the sector;
- Deepen linkages with other sectors;
- Create new sources of growth for the sector;
- Conserve and use national resources on a sustainable basis.

Policy directions under NAP3 include the product group fruit and vegetables to be expanded to meet both domestic and exports demands.

3.2.1 Quality Assurance Programme for primary producers: SALM and SOM

To respond to these challenges the Department of Agriculture (DOA) established a Quality Assurance Programme for primary producers. This programme encompassed two schemes, namely the Farm Accreditation Scheme of Malaysia (SALM = Skim Akreditasi Landang Malaysia) in 2002 and the Malaysian Organic Scheme (SOM = Skim Organik Malaysia) in 2003.

SALM was developed mainly for farms producing fresh fruit and vegetables. References used in developing SALM include:

- FAO draft document on Good Agricultural Practices;
- GLOBALGAP Protocol for fresh fruit and vegetables;
- WHO/FAO CODEX Code of hygienic practice for primary production and packaging of fresh fruit and vegetables.

3.2.2 National GAP standard approved by the Department of Standards Malaysia

To upgrade GAP into a national standard, a proposal was made by QA-plus Asia-Pacific (the GLOBALGAP representative for Malaysia) to the Standard and Industrial Research Institute of Malaysia (SIRIM Berhad) in 2004 for the development of a Malaysian Standard for Good Agricultural Practice (MS GAP). In essence this is a code of practice, which sets out generic guidelines, consistent with environmentally sound agricultural practices and food safety considerations for Malaysian farms and plantations. Requirements established under the SALM scheme were used as a basis in drafting this standard. The standard was first approved by DSM in January 2005 and was registered as Standard MS 1784-2005 Crop Commodities. The standard is applicable for all commodities and includes both food and non-food crops.

Based on the framework of the generic MS 1784:2005, GAP specific standards for 6 major crop commodities (oil palm, rubber, cocoa, pepper, herbs, fruit and vegetables and flowers and ornamentals) have been drafted (in 2005) by experts of the Technical Working Groups.

According to Robert et al. (2005), in the long run it will be appropriate to adopt the MS-GAP as the National Code, managed by SIRIM Berhad. The MS-GAP can then be benchmarked to the GLOBALGAP.

In June 2006 a total of 182 farms were accredited (from about 1,000 applicants) under the SALM scheme in Malaysia (Chen, 2006). A large proportion of the farms which have or are seeking accreditation are the commercial farmers who have their own established markets.

Commercially, the Department of Agriculture promotes SALM-registered farms to get priority in local markets because they qualify as a preferred supplier (with no premiums offered). The Federal Agriculture Marketing Authority (FAMA) has set up the infrastructure with collection centres (CC), providing an outlet for farmers to sell their products to traders. FAMA identifies markets either locally or for export.

SALM registered farms are also eligible to qualify for use of the 'Malaysia's

Best' logo, which is a branding exercise administered by FAMA. Produce has to comply with specific grading specifications, based on physical characteristics as per Malaysian Standards, approved for that product by the DSM.

3.2.3 Link with national legislation

In establishing the criteria for GAP in both SALM and MS-GAP several national laws and regulations have been incorporated to fulfil legislative requirements:

- Food Act (1983) and Food regulations (1985): enforced to protect the public against health hazards and fraud in the preparation, sale and use of food.
- Pesticides Act (1974) and regulations: details conditions on the import, manufacture, storage, sales and use of pesticides.
- Environmental Quality Act (1974) and regulations: relates to prevention, abatement, control of pollution and enhancement of the environment.
- Occupational Safety and Health Act (1994): provides for securing the safety, health and welfare of persons at work.
- Occupational Safety and Health Act regulations (2000); use and standards of exposure of chemicals hazardous to health: emphasises identification of chemicals hazardous to health at workplace, the permissible exposure limits, assessment of risk to health, monitoring of exposure, health surveillance, protection and record keeping.

3.3 Owner of the GLOBALGAP benchmarked standards

As explained in the previous paragraph, two different schemes on the promotion of Good Agricultural Practices can be distinguished: SALM and MS-GAP

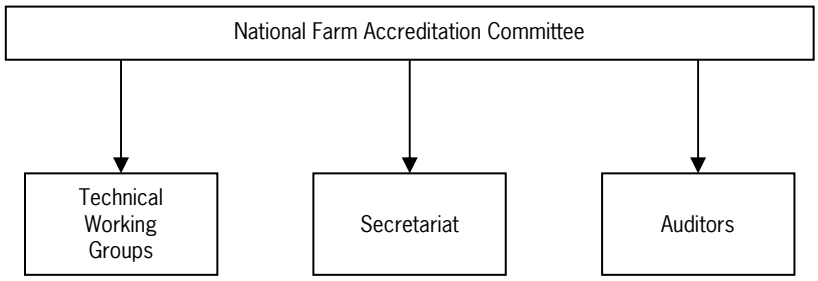
3.3.1 Farm Accreditation Scheme of Malaysia (SALM)

SALM is a national programme run by the DOA as the secretariat with full cooperation of various government related agencies (i.e. stakeholders):

- Malaysian Agricultural Research and Development Institute (MARDI);
- Federal Agricultural Marketing Authority (FAMA);
- Farmer Organisation Authority (FOA;)
- Ministry of Health (MoH).

All decisions are made by a steering committee comprising of representatives from these groups, the National Farm Accreditation Committee. The organisational structure of SALM is described in figure 3.1 below.

Figure 3.1 **SALM Organisation chart**



The National Farm Accreditation Committee comprises representatives from government (DOA, MoA, MoH) and government-related agencies (MARDI, FAMA, LPP). The private sector is not directly represented in the committee. In the SALM technical working groups and among the auditors members from the DOA are included. The technical working groups perform their duties in areas like, site inspection and evaluation, verification of agronomic practices and analysis of farm produce.

SALM is a commitment of policy makers within DOA. The government also bears the cost of inspection and analysis and provides publicity for promotion.

3.3.2 MS-GAP

MS-GAP was developed under the Food and Agricultural Industry Standards Committee (ISCA), which operated within the Standards and Industrial Research Institute of Malaysia (SIRIM Berhad). For the development of MS-GAP a multi-stakeholder approach was used. The team of stakeholders comprises experts and representatives from various government agencies, grower associations, exporters associations, major agricultural producers, consumer associations and smallholder organisations.

MS-GAP was officially launched in December 2005. The secretariat of the MS-GAP is SIRIM Berhad (Menon, 2005).

According to Robert et al. (2005), SALM has finalised an agreement with SIRIM-QAS, the National Certification body, to outsource 3rd party Auditing and Certification.

The DOA intends to adopt the MS-GAP to replace SALM in the long run, once it is fully operational. In 2005 there are plans for both schemes, SALM and MS-GAP to be benchmarked to GLOBALGAP (Robert et al., 2005).

3.4 Benchmarking process in time

Per December 2008, neither the SALM scheme nor MS-GAP have entered into a benchmarking scheme for homologation with GLOBALGAP yet.

Malaysia does have a GLOBALGAP National Technical Working Group, hosted by QA-plus Asia-Pacific.

3.4.1 ASEAN GAP

Malaysia participates in the Quality Assurance Systems for ASEAN Fruit and Vegetables (QASAFV) programme of the ASEAN countries. The programme is in the process of developing a regional standard, the ASEAN Good Agricultural Practice (GAP).

The development of ASEAN GAP is based primarily on the criteria and experiences of national GAP implementation in Malaysia (SALM), Philippines, Singapore (QA for imports and implemented in Indonesia) and Thailand (Q-system). It also drew on certified GAP systems and guidelines from other countries and regions.

The objective is to prevent the risks associated with production, harvesting and post-harvest handling of fresh fruit and vegetables and to facilitate their trade within and beyond the region. It sets the standard practice of on-farm production activities as well as that of local industries where the produce are processed and packed for sale.

ASEAN GAP consists of four modules covering food safety, environmental management, worker health, safety and welfare, and produce quality. Each module can be used alone or in combination with other modules. This enables progressive implementation of ASEAN GAP, module by module based on individual country priorities.

4 Country case Mexico

Mexico, a country with a population of 106 million people, is the first-ranking economy in Latin America, with a one-digit inflation and sustained growth for the last six years.

In 2004, fruits and vegetables represented only 8.4% of the cultivated area, but generated over 34% of the total value of the agricultural sector ((Villarello Landa). The Mexican economy is highly linked to the US economy: in 2003, 89% of total Mexican exports were directed to this country (Peña, 2003).

This dependency is also reflected in the total Mexican fruit and vegetable exports: in 2005, the USA accounted for 92%, the European Union for a 2% share (UN Comtrade).

4.1 Current export destination markets

Mexico has the climate to produce and export year-round with a wide selection of fruits and vegetables. In the last fifteen years, the country diversified its production: while in 1990 only five products (tomatoes, meat, coffee, beer and bell peppers) contributed 50% of the exports, in 2004 a total of 14 products covered main export, with avocados, cucumbers, onions and mangoes gaining importance.

Mexican food exports to the EU showed an increase in 1995-1997. Through 1998 to 1999 the exports value showed a drastic decrease, but rebounded again during 2000 as a result of the implementation of the Free Trade Agreement with the European Union. However, the slowdown in the economic activity of the European Union affected Mexican exports since. (Sagarpa, in Villarello). For the chart, see appendix 5.

According to the general director of Mexico Calidad Suprema (November 2005), the European market represents more than €594.4 million for the Mexican agro-food sector for the marketing of 437 products, mainly fruits, vegetables and ornamentals.

For the European market, avocado is the first ranking agricultural export product to the European Union, followed by coffee, grape and lemon (see appendix 5).

4.2 The Food Quality System to be benchmarked against GLOBALGAP

Mexico started with the quality mark 'Mexico Calidad Suprema' ('Mexico Supreme Quality': MexBest) in 1999, to assure compliance with Mexican Food Law and to differentiate Mexican products in international markets.

Antecedents prior to the establishment of a national quality mark (Villegas):

- The Bioterrorism Act (2202);
- Food Safety Initiative January, declared on January 25, 1997;
- Guide to Minimise Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables (USA 1998);
- GLOBALGAP 1997 established by EUREP (Euro-Retailer Produce Working Group).

Furthermore, the Mexican avocado dispute with the United States over the ban on imports of avocado by the latter has made Mexico introduce quality systems to lift the ban.

Other factors important for the development of Mexican agrifood standards are (Villarello, 2006):

- Occurrence of new norms in destination markets;
- Growing globalisation of trade in fresh food;
- Worried consumers because of food scandals (pesticides, BSE, E. coli etc.);
- Necessity to communicate more efficiently with the consumer;
- Growing concentration of distribution chains with their own quality brands.

Mexico Calidad Suprema is a voluntary quality mark and was introduced to:

- Define minimal quality standards in production processes, under principles of competitiveness;
- Develop markets and competitiveness;
- Protect, maintain and increase market for Mexican products;
- Impulse the integral development of the Mexican rural areas towards competitiveness and the culture of quality.

MCS covers both quality aspects and aspects of food safety:

1. Quality aspects (monitored by SAGARPA)
   - Colour;
   - Size;
   - Defects.

2. Food safety (monitored by SENASICA)
   - Good Agricultural Practices;
   - Microbiological limits.

Compliance with Mexico Calidad Suprema standards is voluntary and covers the whole supply chain (figure 4.1): besides aspects of Good Agricultural Practices, the quality brand also certifies packing and processing industry for good manufacturing practices.

As the quality brand is also a consumer mark, Mexico Calidad Suprema invests in promotion of the mark itself.

4.2.1. Link with national legisiation

The Quality standards are set by SAGARPA. For Mexico Calidad Suprema, 72 production systems (fruits, vegetables, meat, grains and processed food) product-related standards have been developed.

A department of the Ministry of Agriculture (SAGARPA), the National Service of Agrofood Hygiene, Safety, and Quality (SENASICA), monitors the compliance with Food Safety Regulations and administers a network of sample laboratories.

Verification of products for the local market is done by the Federal Procurator for the Consumer (PROFECO).

4.2.2. Certification process

Certification of a producer or company is not carried out by a Government entity, but by a Certification Body accredited by the Mexican Accreditation Entity (EMA). The EMA is member of the International Accreditation Forum (IAF)[1]

The steps to be taken by a producer/company applying for certification:

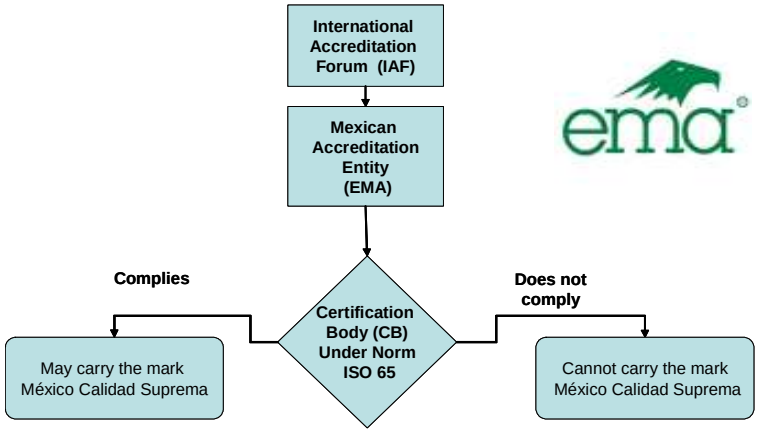
1. Appliance of general regulations for product in question;
2. Auto-evaluation.

[1] According to the GLOBALGAP requirements for Certification Bodies, the Accreditation Body to which the CB applies must be part of either the European Accreditation (EA) multilateral agreement (MLA) on Product Certification, or be member of IAF.

There is a network of MCS consultants to support the applying company;
3. Inspection by a Certification Body;
4. Licence contract between certified company and Certification Body for the use of the quality mark Mexico Calidad Suprema (MCS).

All certifying agents accredited by the Mexican Accreditation Entity (EMA) may grant MCS certification.

Figure 4.1 **Mexico Certification scheme**



4.3 Owner of the GLOBALGAP-benchmarked standards

In 1999 the quality mark 'Mexico Supreme Quality (MCS)' was established, to guarantee food safety and quality of agricultural food products. Mexico Calidad Suprema is a non-profit civil association integrated by entities of the Federal Government and private sector. Co-titulars of the quality mark are:
1. Ministry of Economy (SE);
2. Ministry of Agriculture, Animal Husbandry, Rural Development, Fishery and Alimentation (SAGARPA), in particular its department Support and Services for Marketing of Agricultural Products (ASERCA);
3. National Bank of Foreign Trade (BANCOMEXT);

4. Associations of packing and exporting industry, like the Association of Avocado Producers and Exporters in Michoacán; the Confederation of Mexican Pig Farmers; Agricultural Association of Grape growers; Mexican Association of Cattle Farmers; Mango Packers and Exporters of Mexico; International Scientific Coffee Association; Quintero Group (banana producers and exporters). These associations had representatives in the board of the Civil Association 'Mexico Calidad Suprema'.

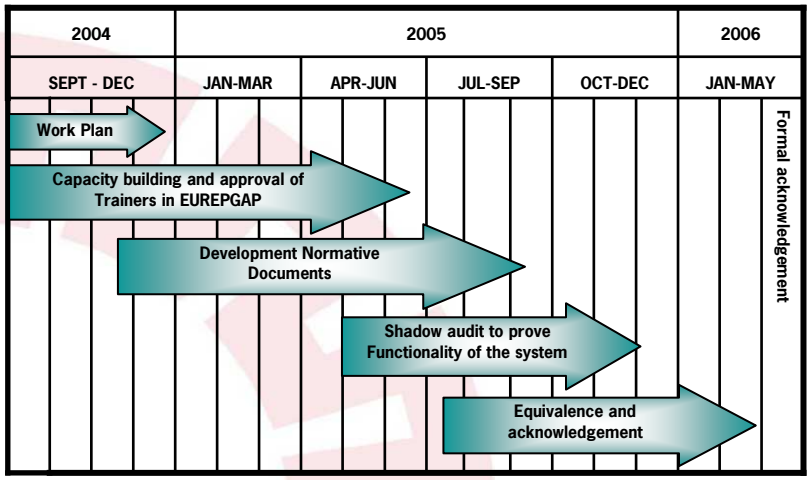
SE and SAGARPA administer the mark with control over the mark licences, monitoring the Certification Bodies and verification of the Official Mexican Norms. The current General Director of the quality mark Mexico Calidad Suprema comes from ASERCA.

The SE administers the licence register of MCS. SAGARPA verifies zoological and phytosanitary norms.

4.4 Benchmarking process in time

Though the quality mark Mexico Calidad Suprema has been in use since 1999, it was not until October 2004 that procedures were started for the homologation of the quality mark with GLOBALGAP standards, to obtain 'Mexico Calidad Suprema-GAP' (see figure 4.2).

Figure 4.2 **Time frame of GLOBALGAP benchmarking process in Mexico**



The Mexican Quality Scheme distinguishes three phases in the homologation process to become GLOBALGAP accredited. Phase I refers to the development and homologation of all National Quality Scheme documentation and guidelines to the GLOBALGAP guidelines. Phase II covers all the internal auditing activities, while phase III refers to the reviewing process of documents and procedures by GLOBALGAP. See appendix 7, figure A7.1.

The Action Plan was established between SENASICA (department under the Ministry of Agriculture) and the civil association 'México Calidad Suprema' for the development and implementation of the new scheme 'México Calidad Suprema-GAP'.[1]

In May 2006, the protocol Mexico Calidad Suprema GAP achieved full accreditation according to GLOBALGAP standards.

In October 2006, three Mexican certification bodies registered before the GLOBALGAP secretary to be accredited as certifying agencies for Mexico Calidad Suprema-GAP. In September 2007, the first Mexican certification body was accredited by GLOBALGAP.

[1] Bulletin of the Ministry of Agriculture (SAGARPA), NUM. 162/06, June 2006.

Per December 2008, Mexico Calidad Suprema-GAP (versions 2.0) is a Fully Approved national scheme against the GLOBALGAP IFA version 3.0 for fruits and vegetables, options 1 and 2.

5 Country case Kenya

The Kenyan horticultural sector is the fastest growing industry of Kenya and second largest foreign exchange earner (after tourism), The sector is a major source of income having generated 3.5% of overall GDP in 2003 (fruits, vegetables, cut flowers, herbs and spices). By the end of 2004, the subsector accounted for 21% of total domestic exports (Karuga, 2005, with figures from the Kenyan Ministry of Planning and National Development). For the development of the horticultural exports from 1996 to 2003, see appendix 8, figure A8.1.

The horticultural sector is an important source of livelihood (including food security, incomes and employment) for over 2 million people. Of this total approximately 250,000 are farmers, of which close to 200,000 are smallholder producers. Of these, about 85,000 smallholder producers engage in export horticulture.

5.1 Current export destination markets

The EU market has traditionally remained by far the most important market destination for Kenya's horticultural products, accounting for 94.7% of all Kenya's horticultural exports on 2003.

In 2003, 97% of all *fresh vegetables* exported went to Europe. Main vegetable export are *French beans*, representing more than half (52%) of Kenya's total volume of vegetable exports. The main country of destinations of Kenya's *French beans* exports in order of importance include UK (80%) followed by France and the Netherlands.

Kenya has been losing market share to other competing countries. For French beans, Morocco has gained market share and since 1998 overtook Kenya as leading exporter to the European market (Karuga, 2005).

In 2003, Kenya exported close to 23,500MT of *fresh fruits* with avocados being the single most important crop having accounted for close to 47% of all total export earnings from fruits. Other important export earners among fruits include passion fruits (20.8%), mangoes (14.4%) and pineapples (1.8%).
Kenya accounts for 10% of the EU share of avocados. The main competing countries in order of importance are Israel, South Africa and Mexico.
The main competing countries for Kenya's passion fruit exports to the EU in or-

der of importance are Malaysia (54%), Zimbabwe (14%) and Colombia (6%). For passion fruit, Kenya is gaining market share in the European Union (from 7% in 1996 to 13% in 2002) (Karuga, 2005).

Resuming, for all horticultural products (mainly fresh fruits and vegetables; cut flowers), the EU market represents the most important market destination (table 5.1).

Table 5.1 Importance of the European market for the Kenyan horticulture sector

Product	Volume	Share of exports to EU market
Cut flowers/foliage	60,983 MT	98%
Fresh vegetables	48,674 MT	97.2%
Fruit a)	23,575 MT	86%
Total horticulture	135,237 MT	94.7%

a) Based on avocado and passion fruit exports to EU.
Source: Garuda (2005).

5.2 The Food Quality System to be benchmarked against GLOBALGAP

In 1997, the first edition of the FPEAK code of practice was introduced. FPEAK, the Fresh Produce Exporters Association of Kenya, is the main promoter of the implementation of GLOBALGAP standards and development of KenyaGAP. The first pilot project on GLOBALGAP in Kenya was started in 2001.

KenyaGAP was introduced to:

- Standardise productions systems;
- Provide level of control at all levels, by entrenching GAP principles in peoples operating procedures;
- Provide a National Interpretation Guideline, inclusive of Kenyan legislation;
- Provide a one stop base code that provides basis for complying with any market requirement.
  (Source: Kyengo, 2006-II)

Essentials of KenyaGAP:

- Customised to Kenyan conditions-National interpretation guidelines included;
- Inclusive in application and development for large and small-scale grower, public and private sector;
- Embraces smallholder farming Good Agricultural Practices;

- Minimises duplication;
- Technical scope (GAP) and Social Scope includes 'what' and 'how' information;
- Separation of Risk assessment and risk management-based GAP application;
- Adaptable to other countries, (based on supply chain mapping);
- Quality Management System (QMS) template included that is hyperlinked to lead growers and exporters on sample documents.

5.2.1 Antecedents prior to the benchmarking process of KenyaGAP standards:

Antecedents preceding the development of national GAP standards are mainly related to food scares in the European Union:

1990s	Food scares and business losses 1990s. Successive Food Law Acts resp. Food Act of UK 1990, EEC 90/642, EEC91/414/ PPP and setting of MRLS, EEC 2251/92,
1996	Private sector reaction: private labels - British Retail Consortium
1997	Common Agricultural Policy took effect in EU. Environmental issues introduced into GAP First edition of FPEAK code of practice.
1999	GLOBALGAP introduced Second edition of FPEAK code of practice
2000	Introduction of ethical issues: ETI, Max Havelaar, MPS
2002	International Food safety-IFS, Germany & IFS, Germany & France (Equivalent to BRC UK, Netherlands & rest of Europe.
2001	First pilot certification on GLOBALGAP in Kenya
2002	EU legislative framework: - SPS Issues take centre stage, e.g. Pesticide Harmonisation process, Introduction to harmful organisms, certificate of conformity, traceability, food & feed Directives - International Food Safety (IFS), Germany and France equivalent to BRC Private sector standards pushed compliance to every level of production. Field to Fork-Marks Spencer, Tesco Nature's Choice, GLOBAL-Gap, - EUREP introduces benchmarking concept for GLOBALGAP

5.2.2 Link with national legislation

At the national level, there have been several initiatives to create awareness about various food safety and quality requirements in the main export markets as follows:

- *The National Food Safety Committee*

This is a committee that was formed to work within the existing National Codex Committee. The main task was to oversee the framework for adoption of the Codex Alimentarius Food Hygiene Code into the domestic as well as export market production. All major stakeholders are represented in this including the Kenya Plant Health Inspectorate Services (KEPHIS), Kenya Bureau of Standards (KEBS), HCDA, Department of Public Health, donors involved in facilitating smallholders' compliance such as Business Services and Market Development Programme (BSMDP) and the Kenya Horticultural Development Programme (KHDP), funded by the DFID and USAID, respectively, GTZ, just to mention a few (Nyagath, 2006).

Promotional and training activities on GAP issues have been realised by the public and private sector:

- *HCDA/JICA/MOA Training*

Since 2003 these institutions have been involved in the training of field extension staff from the Ministry of Agriculture (MOA) and the Horticultural Crops Development Authority (HCDA) on EU regulation and GLOBALGAP requirements.

This was done through training and workshops that exposed the staff to Quality Management Systems (QMS) - ISO 9000, Environmental Management System - ISO 14000 and Social Accountability - SA 8000. The trained officers now serve as trainers for smallholder farmers and internal auditors who prepare farmers for pre-audits. Several training-and production manuals covering export fruits and vegetables were also developed and all these incorporated Good Agricultural Practices (GAPs). Subsequent to these trainings farmers' groups were trained at district level and group secretaries trained on record keeping.

5.3 Owner of the GLOBALGAP benchmarked standards

In order to ensure consensus and ownership, multiple stakeholders are involved

in the discussions on national standards, and they include: Exporters' associations such as FPEAK, HCDA (parastatal organisation), KEBS, KEPHIS (Kenyan Plant Health and Inspection Service), Department of Public Health, National Environmental Management Authority (NEMA), Ministry of Agriculture.
Donor funded projects such as BSMDP, KHDP, the UK Department for International Development (DFID) and US Agency for International Development (USAID) have continued to facilitate the process by arranging suitable facilities and securing the input of technical specialists.

In February 2005, the National GLOBALGAP Technical Committee was commissioned, facilitated by the FPEAK Secretariat. The working Group gets input from different stakeholders (see Appendix 9 for the mandate of the Technical Committee, and figure A9.1: Input of stakeholders in KenyaGAP.

5.4 Benchmarking process in time

2002
- Revision Code of Practice for Fruits and Vegetables.

2004
- FPEAK begins to develop its own standard with the assistance of COLEACP (Europe Africa Caribbean Pacific Liaison Committee.
- Specific attention to small scale farmers' issue of minimum sample size for 'self-help' groups, a legal structure enabling small scale farmers to engage in formal alliances with exporters and minimize certification costs.[1]
- FPEAK revises the Code as Kenya-GAP.
- FPEAK appoints an Industry-based Technical Committee (TC) to ensure ownership.

February 2005
- Visit by FoodPLUS staff to Kenya. Discussion on inclusion of small scale farmers into a National scheme benchmarked to GLOBALGAP.
- Formation of GLOBALGAP National Technical Working group.

[1] The sample size for group certification as determined by GLOBALGAP is the square root of total number of farmers of the group. Hence a larger group will decreases certification costs.

October 2005

- Revised version of KenyaGAP sent for benchmarking to GLOBALGAP.

January 2006

- Expected KenyaGAP benchmarked (Kariuki, 2005).

August 2007

- Kenya GAP benchmarked against GLOBALGAP standards (Stephen Mbiti, 2008).

December 2008

- KenyaGAP Applicant Standard Owner, at the phase of Independent Technical Review for Flowers and Ornamentals and fruits and Vegetables; in the Re-benchmark Process for GLOBALGAP IFA v.3.0.

Sources: Kariuki (2005); Garbutt (2005)

6 Country case Chile

In Chile, the agrofood sector provides 17% of the country's employment and 23% of its exports. Over 4,000 companies participate in supplying more than 120 countries on the five continents (Villalobos, 2005).

The agrofood sector constitutes the second largest in exports, after forest products. Of the agrofood sector, the contribution of fresh fruit accounts for 28% (see appendix 10, figure A10.1).

In 2005, there were 1,000 GLOBALGAP certified farmers at the national level, with a total of 25,000 hectares. There are six international GAP certification entities operating in Chile, with 40% of the exportable volume of the Chilean fruit and horticultural products certified under GAP regulations (among others: GLOBALGAP, ChileGAP, USGAP, Nature's Choice).

6.1 Current export destination markets

Market destination of exported fruit products are shown in table 6.1, with the United States and Canada as mayor destination market, followed by Europe.

Table 6.1	**Distribution of destination markets, 2004 (%)**
USA / Canada	38.49
Europe	25.08
Latin America	24.86
Far East	7.30
Middle East	4.27
Source: Villalobos, MoA.	

6.2 The Food Quality System to be benchmarked against GLOBALGAP

ChileGAP is a private Certification Scheme developed since 1999 by the Foundation for Fruit Development (FDF), by virtue of a mandate of the Chilean Fresh Fruit and Vegetable Industry (ASOEX), in order to harmonise the widely accepted Good Agricultural Practices in Europe, the United States and the local legislation in order for national growers to be able to establish GAP for primary production

(FPF, 2003).

ChileGAP is applicable to all fruits and vegetables during all stages of the production process, including site selection, seed, rootstock, varieties (CTI 2006).

ChileGAP includes aspects of:

- Food Safety: HACCP and national and international legislation such as Codex Alimentarius;
- Environmental protection;
- Workers health, security and welfare;
- Animal welfare where applicable.
  (CTI 2006)

6.2.1 Objective of ChileGAP Programme

The main objective of the ChileGAP programme is to provide support to the global commercialisation of Chilean fresh fruit and vegetable produce, by generating trust among the different market agents with regard to the application of the Good Agricultural Practices in Chile.

To this end, it offers growers and exporters a regulated, documented and permanently updated system that incorporates market requirements and is adapted to Chilean agricultural production practices.

6.2.2 Link with national legislation

In March 1991 the National Commission of Good Agricultural Practices, a public sector coordination body with representatives from both public and private sector, was established to assist the Ministry of Agriculture in the formulation of policies destined at Good Agricultural Practices in agricultural production processes. The National GAP Commission is presided by the subsecretary of Agriculture and has developed 16 GAP General Regulations for Fruit, horticultural and animal production (CTI, 2006).

6.2.3 Certification process

ChileGAP certification can be obtained by:

- Individual Agricultural Growers;
- Groups of Agricultural Growers (GAG).

The producer interested in the certification process establishes a contractual relationship with a certification body. ChileGAP authorises and issues licenses to approved Certification Bodies who are empowered to carry out ChileGAP audits and issue certificates of compliance to ChileGAP standards and are accredited by ISO 65 / EN 75011.

Grower or GAG can obtain a certificate of a 'Progress Report', when obtaining at least the following compliance percentages with the Control Points:

Requirements for ChileGAP certification are	**Requirement for 'Progress Report' are**
100% of Major Must points	100% of Major Must points
95% of Minor Must points	70% of Minor Must and Must points
70% of Must points	

For the description of the ChileGAP control points, see appendix 10.

6.3 Owner of the GLOBALGAP benchmarked standards

The ChileGAP Scheme is a private-sector owned initiative, as developed by the FPF. The Scheme is headed by a Steering Committee, formed by twelve members:

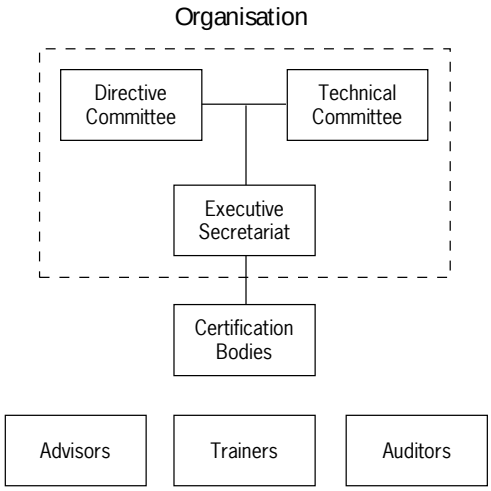
- 5 producer representatives;
- 3 exporter representatives;
- 2 representatives of the University academic sector; and
- 2 representatives of organisations of the fruit sector.

Moreover, ChileGAP has a Technical Committee formed by:

- 5 exporters specialists
- 5 growers specialists
- Fruit Development Foundation Technical Manager.

See figure 6.1 for the organisational chart.

Figure 6.1 **ChileGAP Organisational chart**



The integrants of the Technical Committee do not participate as company representatives, their role is to provide personal expertise to the Committee. The function of the Technical Committee is to analyse, assess, develop and propose to the Steering Committee the following matters:

- Propose and agree revisions of the General Regulations and the other normative documents of the Scheme, in function of the changes affecting the international standards most widely accepted by buyers;
- Develop the technical documents of the ChileGAP Scheme;
- Approval and sanctioning of Certification Bodies;
- To act as an official technical body, as required by Certification bodies; participants in the Scheme and accreditation authorities.

ChileGAP is administered by the FDF, whose main function is to maintain records on certification bodies, consultants and trainers approved by and qualified in ChileGAP, records on all productive units certified under the ChileGAP standards, disseminate technical documents and System regulations, and organise Calibration Workshops and Seminars for all Programme providers.

In order to guarantee the Programme's independence, the assessment of each participant's compliance will be done through independent certification bodies, rated and registered by FDF.

The ChileGAP standard compliance assessment process will include self-assessments performed by the participant, and assessments by an independent third party according to ISO 65 guidelines and EN 45011, who, after compliance conditions established on the General Regulations, will issue an official ChileGAP certificate.

6.4 Benchmarking process in time

Sept 2002
According to the Technical Manager of FDF, Mr. Adonis (Garbutt, 2005), it took about a year to prepare the final version of the standard before application to GLOBALGAP.

Sept 2003
From the moment the documents were submitted to GLOBALGAP for the benchmarking procedure up to official recognition by GLOBALGAP, there was a lapse of around eight months (Adonis in Garbutt, 2005).

April 2004
ChileGAP reaches full equivalency to GLOBALGAP.

2005
ChileGAP reaches harmonisation of GAP and Food Safety Standards of both Europe and the United States.

May 2007
Inspection of ChileGAP-certified plots by GLOBALGAP to check validity of emitted certifications and functioning of certification system.

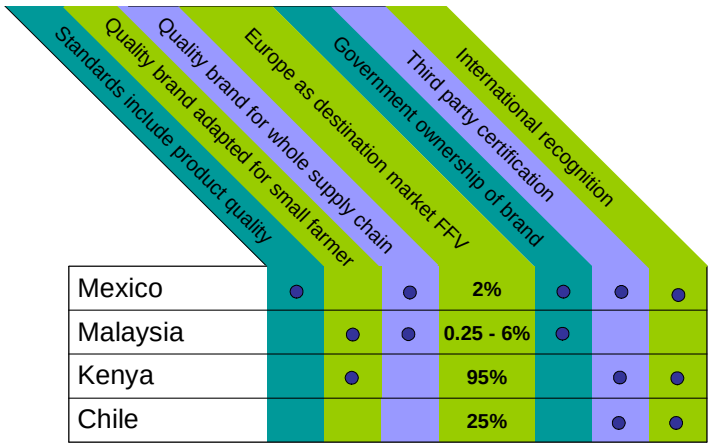
February 2008
ChileGAP Version 3.0. January 01, 2008, option 1, fully approved against GLOBALGAP IFA version 3.0 for Fruit and Vegetables.

7 Comparison of country cases and lessons learned

In this chapter the National GAP schemes of the four country case studies are compared with respect to aspects that are relevant for the benchmarking process. It gives an overview of some of the characteristics of the National GAP schemes in relation to the four questions that were used as guideline for the study: 1) Main export markets of the country; 2) relation with (inter)national legislation; 3) Ownership and structure; 4) Flowchart.

For a comparison of the Malaysian GAP (SALM) and ThaiGAP schemes, see appendix 11.

Figure 7.1 **Comparative overview of the National GAP schemes**



7.1 Market incentives for National GAP development

Though you would expect countries to homologise national standards with those prevalent in their main destination market, this is only truly so in the case of KenyaGAP. Almost 95% of all Kenyan fresh fruit and vegetable exports have the

European Union as destination market. Main motivation for KenyaGAP is regaining and consolidating market access to the European market.

Conversely, the main objective of the schemes in Chile and Mexico is not to consolidate market share, but to develop new markets. The national GAP schemes particularly aim at increasing exports tot the European Union. As their historical and main market is the United States, specific efforts are undertaken to blend the requirements of both markets (European and US market) to avoid multiple certification. Both national schemes have been benchmarked to GLOBALGAP.

The MexicoGAP benchmarking scheme seeks diversification and growth of its fruit and vegetable markets to the European Union. Chile already has a diversified market with the European and USA markets for horticultural exports. This has made Chile take the lead in homologising the requirements of both markets for benchmarking its National GAP standards.

Malaysia has Singapore and the other ASEAN countries as natural markets. It has not yet benchmarked its standards with GLOBALGAP, though it is in process of homologation of developed GAP standards with other ASEAN countries.

Mexico is the only country to have included product intrinsic quality aspects in the GAP standards (appearance of the product, defects, etc.). Consequently, the country has only product-specific and no Generic GAP Standards, which poses problems for multi-crop farmers who in that case need multiple certification. In Malaysia, the Federal Agricultural Marketing Authority (FAMA) also certifies product-dependant quality aspects that allow certified market partners to carry the 'Malaysian's Best' logo. FAMA works closely with SALM on the development of markets for GAP registered farmers and has developed local marketing infrastructure (collection centre). The national GAP schemes of the other three countries are more directed at export markets than internal markets.

The (international) precedents that promoted the development national GAP schemes, are in accordance with the importance of their export markets: while Kenyan presentation (Kyengo, 2006) mentions the food scandals that occurred in Europe in the '90s; Mexican presentations (Villegas, 2006) mention the Bioterrorism Act and the Food Safety Initiative-USA.

7.2 Ownership: government of private sector initiative

The most notable distinction between the different National GAP Schemes is its government-led or private sector-led character. In Mexico and Malaysia the na-

tional GAP schemes are initiated and managed by governmental bodies and form part of a larger certification scheme for all the phases of the supply chain. The difference between both countries is the fact that Mexico has had third party auditing and certification by independent certification bodies where the SALM Malaysia currently has not, though assumingly SALM is considering outsourcing (3rd party) Auditing and Certification with SIRIM-QAS, the National Certification body (Robert, 2006).

Malaysian government departments have participated in the development of the MS-GAP, a national Standard. Contrary to the SALM standards, MS_GAP was developed with active participation stakeholders form the private sector. It is expected (Robert, 2005) that SALM will take over the MS-GAP in the SALM programme. With third-party certification by SALM and joint standards, both initiatives will converge in time. SALM is expected to be more directed at development of the overall agricultural sector including the national markets and small-scale farmers, while the MS-GAP will be more directed at export markets (compliance with international standards and market requirements).

The government-led GAP schemes of Malaysia and Mexico form part of a quality brand audited throughout the supply chain (Malaysia's Best and Mexico Calidad Suprema respectively) and promoted in the domestic market. Nevertheless, in Malaysia a farmer can be GAP certified without Malaysian Best brand certification. In Mexico this is not possible.

ChileGAP and KenyaGAP have been an initiative by stakeholders from the private sector. It is exclusively directed at the beginning of the supply chain, no brand or quality mark is developed.

7.3 National GAP scheme adapted to small-scale farmer production

In Chile and Mexico, the GAP programmes, were developed by large producers (bottom up) and then endorsed by the Governments. There is little focus on conditions and concerns of small producers, as is the case in Kenya and Malaysia. Structural deficit in smallholders' horticulture impedes more participation.

7.4 General conclusions

All the cases show that a strong marketing motivation lies at the bottom of countries entering benchmarking procedures. With the exception of Kenya, which used benchmarking to consolidate its export market, benchmarking is used to get more credibility in markets targeted for expansion of exports. The quest for credibility from market partners explains the importance of independent third-party certification: precisely where this was not included in the quality assurance system, in the case of Malaysia, benchmarking was not concluded. Malaysia was the only case in which the quality assurance system was set up as a response to challenges in the development of the agricultural sector - increase productivity, use of natural resources, food security.

The precise link between the GLOBALGAP procedure and the development of national legislation was not subject to the study. In two cases (Mexico and Kenya), food scandals preceded the GLOBALGAP procedures. Chile, Kenya and Mexico adjusted national legislation using the food legislation of their main market as reference.
No conclusions can be drawn on whether adaptation of standards to small holder's agricultural practices influences the benchmarking procedures. It would seem that the smallholder export market position is more decisive for accreditation.

Finally, from the cases studied it becomes apparent that government-led GAP initiatives are part of strategic sector-wide policies that include legislation. Private-sector led food quality systems tend to be more directed at compliance with international standards. In all cases compliance is voluntary.

7.5 Lessons learned for Thailand

Clear vision, objectives and strategy for national GAP scheme are vital (weighing up national objectives with access requirements to export markets). This will make it easier to manage growing complexity of the process and to make amendments to standards later on.

The gradual, step-like and multi-tier approach as found in the Malaysia case is interesting, particularly the experiences with the gradual convergence of the more nationally oriented SALM with the MS-GAP initiative. For Thailand this experience

can be used in the process of homogenising Thai Q-GAP - initiated by the Thai government - and ThaiGAP - initiated by the Thai private exporting sector. It is also important to note that credibility of the system is enhanced by independent verification; and that small producers receive financial support . Malaysia is considering third-party certification by an entity strongly related to the Malaysian government (SIRIM Quas).

The cases show that countries enter in benchmarking procedures with GLOBALGAP in order to consolidate or significantly increase market share in Europe. Considering main destination markets for fresh fruits and vegetables, for Thailand homologation of GAP with other ASEAN countries might be preferred over benchmarking with GLOBALGAP

Mexico has the most developed quality brand which has proven a strong export marketing instrument. The development of the Thai Q-mark in the national retail sector might benefit from a strong Q-brand in the ASEAN countries.

Alternatives have to be sought to decrease costs of compliance at different levels; improve managerial and business skills at different levels and create new capabilities: KenyaGAP is proving that small-scale farmers' participation in export oriented GAP standards formulated by the private sector is feasible; though it requires additional funding.

Government (Malaysia) and donor (Kenya) involvement in national GAP schemes enlarges accessibility for small scale farmers. Strong public-private alliances will improve the organisation and coordination of the food chain actors. The various government institutions and private stakeholder organisations in the supply chain must come together to form a strategic 'think tank'

Intra governmental cooperation between the various related government agencies is essential. The various parties that are involved in the planning, management and implementation of the national GAP must have a clear understanding, knowledge and commitment.

Table 7.1	Key Questions with lessons learned from case studies for the Thai situation
1. Export destination markets in relation to the GLOBALGAP benchmarking process	
- Countries enter in benchmarking procedure with GLOBALGAP in order to consolidate or significantly increase market share in Europe. Considering main destination markets for fresh fruits and vegetables, homologation of GAP with other ASEAN countries might be preferred over benchmarking with GLOBALGAP	
2. Existing standards and Food Quality Systems before entering benchmarking process. How do these relate to national legislation?	
- Government-led GAP initiatives are part of strategic sector wide policies that includes legislation. Private sector led food quality systems tend to be more directed at compliance with international standards. In all cases compliance is voluntary.	
3. Who is owner of the benchmarked standards?	
- Government owned national Gap schemes relatively dedicate more efforts to the promotion of food safety and quality among (small scale) farmers. - Private sector led initiatives are less directed at development, more at meeting export market requirements. - Mexico is the only government-owned scheme to have 3rd party certification from the start of its programme. - In Malaysia, active participation of the private sector in the development / management of the standards has been a parallel process taking place outside the SALM programme.	
4. Which stakeholders need to involved in the benchmarking process? What institutional structure exists or need to be set up to manage and implement the standards?	
- In government owned GAP schemes, governmental departments (Agriculture) develop the standards. In private sector led schemes there is more involvement by exporter and industry associations. All four GAP schemes function with broad stakeholder meetings / workgroups, in the case of Malaysia through MS-GAP. - In Mexico and Chile a separate non-profit entity was founded / existent for the administration of the GAP scheme, in Kenya and Malaysia this is done by committee with designated secretariat at one of the stakeholders (DoA in Malaysia; FPEAK in Kenya).	

5. *How did the benchmarking process take place in time? Which steps were taken, when and by whom?*
- In Mexico, the whole process for recognition by GLOBALGAP took 20 months (sept 2004-May 2006). The period between submission and recognition took 10 months, in stead of the planned 3. - In Chile it took a year to prepare the final version of the standard before application to GLOBALGAP, the period between submission of documents and recognition by GLOBALGAP covering eight months. - All three benchmarking procedures distinguish between the preliminary phase of preparation of the documents, and the submission and review of procedures by GLOBALGAP. Mexico additionally distinguishes a third phase of procedures implementation (pre-audits). - All three benchmarking processes show that procedures take longer than planned beforehand. Benchmarking procedures are recent: the earliest benchmarking procedure, ChileGAP, started in 2002.

8 Epilogue

At the time of the desk study, Thai Good Agricultural Practices had not yet been submitted to FoodPlus for accreditation against GLOBALGAP standard, though there was interest from the Thai government to accredit the Thai Q-GAP scheme; as well as from the exporting private sector to have their GAP acknowledged.

On 15 September 2007, a press release by GLOBALGAP declared the formal announcement In Bangkok a week earlier, to benchmark Thai production standards with GlobalGAP standards, with the creation of ThaiGAP.

Mr. Chusak Chuenprayoth, director at Thailand-based fresh produce supplier KC Fresh; project director for ThaiGAP and member of the board of GLOBALGAP, at the occasion expressed that the Thai exporting industry has been instrumental in setting up the initiative after realising the potential of the UK market. 'We started to translate the GlobalGAP standards three years ago-unofficially-because we wanted to make them really clear for local growers. We started thinking about ThaiGAP one year ago.'

In the same press release, the Thai deputy Prime Minister Kosit Pupienmrat was quoted that 'Thailand is behind the spirit of GlobalGAP. The consumer demands food safety assurance and this is one of the strongest forces driving food safety standards in Thailand-we see the GlobalGAP standards as some of the most comprehensive.'

He admitted that more needed to be done to educate the Thai industry and, in particular, smallholder producers, as so far only some five to 10 per cent of Thai growers are familiar with and prepared to upgrade their processes to meet GlobalGAP standards, he said.

References and websites

Committee on Trade and Investment (CTI)/Agricultural Technical Cooperation Working Group (ATCWG) (2006): *'Proceedings on the Capacity Building Seminar on Good Agricultural Practices for APEC developing countries'*.

Foundation for Fruit Development (FDF) (2003): *'Summary of ChileGAP standard', Chilean fresh export fruit and vegetables Good Agricultural Practices Scheme (ChileGap)*, November 11, 2003

Garbutt, Nigel and Elmé Coetzer (2005*): 'Options for the development of National/Sub-regional Codes of Good Agricultural Practice for Horticultural Products Benchmarked to EurepGAP'*, Consultation Draft September 2005.

Hoffmann, Ulrich (2007): *'Experience on developing national GAP programmes in Asia and Latin America: a comparative perspective'*, UNCTAD Secretariat, presentation for FAO-UNCTAD Regional Workshop on Good Agriculture Practices in Eastern and Southern Africa: Practices and Policies, 5-9 March, Nairobi, Kenya

Karuga, Stanley (2005, draft): 'Study on horticultural exports to the EU under economic partnership agreement & proposals for EPA negotiations, prepared for KEPLOTRADE Secretariat.

Kariuki, Sicily (2005): *'Quality assurance in competitive export business'*, PPT presentation FPEAK, Making Kenyan Horticulture the Global Choice.

Kyengo, Cosmas (2006-I, ppt presentation), Workshop 'Sustainable Agriculture in Africa: From Ideas to Action', Johannesburg, August 16 2006

Kyengo, Cosmas (2006-II, ppt presentation), Seminar 'EurepGAP Certification & smallholders in the horticulture sector in Africa', November 22, 2006, Nairobi.

Menon, Sathianathan (2005): *'Implementation of GAP in the Fresh Fruit & Vegetable Sector in Malaysia, presentation at the FAO- Thailand Workshop on Good Agricultural Practices (GAP) for Fresh Fruit and Vegetables'*, 14-15th September 2005 Bangkok, Thailand.

Nyagath, Ruth (2006): *'Reflecting National Circumstances and Development Priorities in National Codes on Good Agricultural Practices That Can be benchmarked to EUREPGAP-The Case Of Kenya'*, UNCTAD National Case Study - Kenya, January 2006.

Santacoloma, Pilar (2007): *'Institutional Strengthening and Investments needed to comply with EurepGAP in Fresh Fruits and Vegetables: Case studies for Kenya, South Africa, Chile and Malaysia'*, Rural Infrastructure and Agro-industries Divisions - FAO.

Robert, Mr. Christie and Sathianathan Menon (2005*): 'Malaysia, country case study on reflecting national circumstances and development priorities in national codes on Good Agricultural Practices that can be benchmarked to Eurepgap'*, UNCTAD/PHILEXPORT Sub-Regional Stakeholder Consultations: Potential and Challenges of EUREPGAP in Asia, Manila, Philippines November 29-30th, 2005, First draft report and powerpoint presentation. Downloaded from http://www.unctad.org/trade_env on June 18 2007 and December 11, 2008.

Villalobos, Dr. Pablo and Pilar Santocoloma (2005): *'Chile's experience on implementing a national GAP benchmarked to EurepGAP'*, ptt presentation for Sub-regional Stakeholder Consultation on Issues in Benchmarking National Codes on Good Agricultural Practice for Horticultural Products to EurepGAP, Rio de Janeiro, 8-10 December 2005.

Villarello, Blanca G. (2006*): 'Mexico Calidad Suprema Benchmarking'*, SAGARPA, powerpoint presentation at Agritrade, March 2006.

Villegas G., Marco A. (2006*): 'Mexico Calidad Suprema'*, Costa Rica, November 2006, powerpoint presentation.

Websites consulted

http://www.mexicocalidadsuprema.com
http://www.senasica.sagarpa.gob.mx
http://www.profeco.gob.mx
http://www.bancomext.com/
http://www.eurep.nl
http://www.eurep.org
http://foodqualityschemes.jrc.es
http://www.infoaserca.gob.mx/mexbest/
http://www.mexbest.com.mx/
http://www.ema.org.mx

Appendix 1

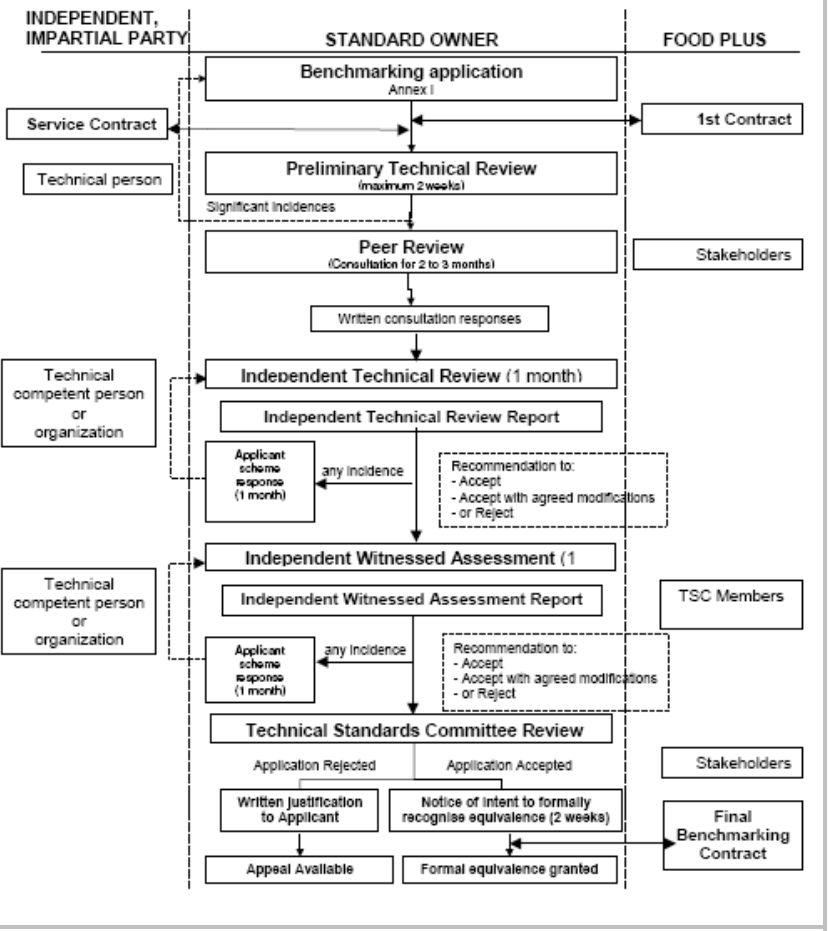
Abbreviations

ASEAN	Association of Sout-East Asian Nations (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam)
ASERCA	*Apoyos y Servicios a la Comercialización Agropecuaria* (Support and Services for Marketing of Agricultural Products; decentralized department of SAGARPA in Mexico
ASOEX	Asociación de Exportadores de Chile, (Chilean Fresh Fruit and Vegetable Industry)
BANCOMEXT	*Banco Nacional de Comercio Exterior* (Mexican National Bank of Foreign Trade)
DAP	Deutsche Akkreditierungssystem Prüfwesen Gmbh
DoA	Department of Agriculture (Malaysia)
DSM	Department of Standards of Malaysia
FAMA	Federal Agricultural Marketing Authority (Malaysia)
FOA	Farmer Organisation Authority (Malaysia)
FPEAK	Fresh Produce Exporters Association of Kenya
FPF	Fundación para el Desarrollo Frutícola, Chile (Foundation for Fruit Development)
GAP	Good Agricultural Practices
MARDI	Malaysian Agricultural Research and Development Institute
MoH	Ministry of Health (Malaysia)
MS_GAP	Malaysian Standard on Good Agricultural Practice
MCS	Mexico Calidad Suprema MCS (=Mexico Supreme Quality)
MSQ	Mexico Supreme Quality (= Mexico Calidad Suprema MCS)
QA-plus	Asia-Pacific GLOBALGAP representative
SAGARPA	*Secretaría de Agricultura, Ganadería, Desarrollo Rural y Pesca y Alimentación* (Mexican Ministry of Agriculture, Animal Husbandry, Rural Development, Fishery and Agrifood).
SALM	Skim Akreditasi Ladang Malaysia (Farm Accreditation Scheme of Malaysia)

SE	*Secretaría de Economía* (Mexican Ministry of Economy)
SENASICA	*Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria* (National Service of Agrifood, Hygiene, Safety, and Quality; decentralized department of SAGARPA in Mexico)
SIRIM Berhad	Standard and Industrial Research Institute of Malaysia
SIRIM QAS	Certification Body accredited by the Department of Standards of Malaysia, wholly subsidiary of SIRIM Berhad

Appendix 2

Product certification standard benchmarking



Source: EurepGAP_BenchmarkingProcedure_V1.2-June05, Appendix 2.

Appendix 3

Malaysian Export Figures

Table A3.1	Export and import value of fruits and vegetables (x RM 1000)				
	2000	**2001**	**2002**	**2003**	**2004**
Fruit					
Exports	512,418	497,215	523,967	513,465	467,213 a)
Imports	561,594	596,158	616,306	608,375	642,576 a)
Balance of trade	- 49,176	- 88,943	- 92,339	94,910	- 175,363
Vegetables					
Exports	278,411	312,194	358,283	391,707	465,562 a)
Imports	1,023,596	1,121,877	1,185,861	1,176,091	1,564,582 a)
Balance of trade	- 755,185	- 802,683	- 827,578	- 784,384	-1,099,020

a) Year estimate based on Jan - May value.
Source: Robert and Menon (2005).

Table A3.2	Malaysian Fruit exports and main destinations, 2001-2004 (%)				
	2000	**2001**	**2002**	**2003**	**2004**
Asean a)	54.1	51.0	48.2	51.5	51.8
Hong Kong	20.2	25.4	25.8	28.5	25.9
EU b)	8.6	8.5	8.0	9.0	10.2
India	1.9	1.1	1.0	1.1	1.4
China	0.3	0.3	0.5	0.7	1.4
USA	0.9	0.3	0.1	0.04	0.2
Japan	0.1	0.1	0.1	0.05	0.1
Others	13.9	13.3	16.3	9.1	8.1

a) Asean countries: Brunei, Indonesia, Myanmar, Philippines, Singapore, Vietnam; b) EU = European Union, 25 countries.
Source: Roberts, C and S. Menon (2005).

Table A3.3	Malaysian Vegetable exports and main destinations, 2001-2004 (%)				
	2000	2001	2002	2003	2004
Asean a)	90.7	90.5	87.8	79.1	78.5
Hong Kong	0.06	0.06	0.16	0.03	0.21
EU b)	0.08	0.13	0.08	0.24	0.18
India	1.2	1.7	0.85	0.17	0.18
China	0.01	-	-	0.03	0.21
USA	0.15	0.03	0.13	0.95	0.98
Japan	-	0.04	0.12	0.14	0.32
Others	7.8	7.6	10.9	19.4	19.1

a) Asean countries: Brunei, Indonesia, Myanmar, Philippines, Singapore, Vietnam; b) EU = European Union, 25 countries.
Source: Roberts, C and S. Menon (2005).

Figure A3.1 Malaysian Fruit Exports

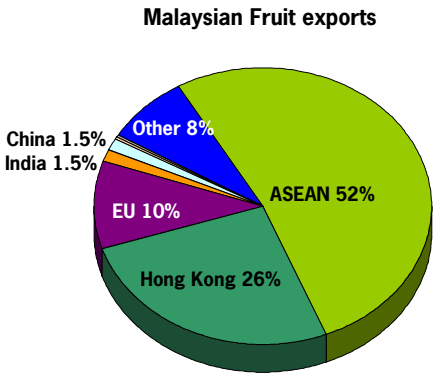
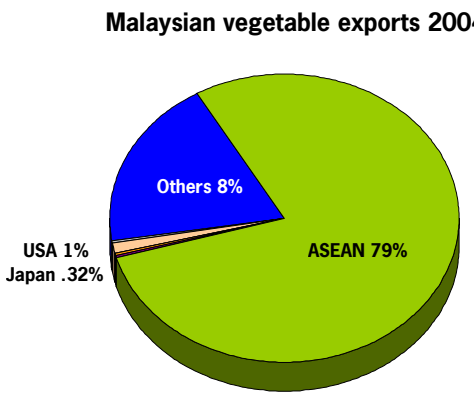


Figure A3.2 **Malaysian Vegetables Exports**



Appendix 4

Working Group on MS-GAP in Malaysia

The working group on MS-GAP comprises the following organisations:

- Qa plus asia-pacific sdn.bhd
- Federal Agricultural Marketing Authority of Malaysia
- Standards Industrial Research Institute of Malaysia
- Commercial Orchid Grower of Malaysia
- Department of Agriculture (region LK, Sabah and Sarawak)
- Golden Hope Plantation
- Rubber Research Institute of Malaysia
- Malaysian Agricultural Research and Development Institute
- Malaysian Herbal Corporation
- Malaysian Palm Oil Board
- Malaysian Palm Oil Association
- Ministry of Health
- Ministry of Primary Industries
- Ministry of Agriculture
- National Association of Small Holders
- Flower Growers Association of Malaysia
- Federal Association of Vegetable Growers

Appendix 5

Mexican Fruits and Vegetables Exports to the EU

Figure A5.1 **Importance of Mexican products for European market**

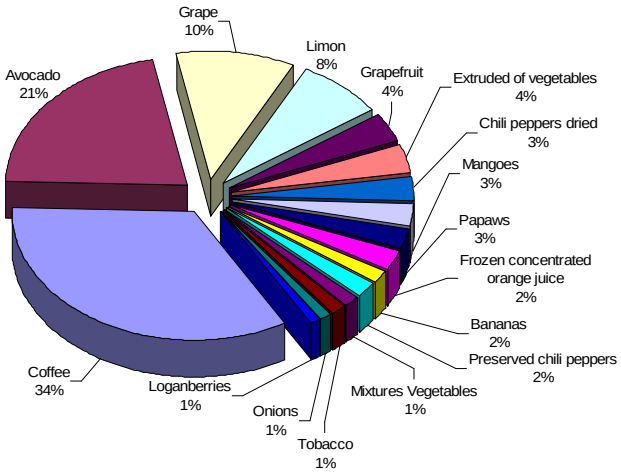
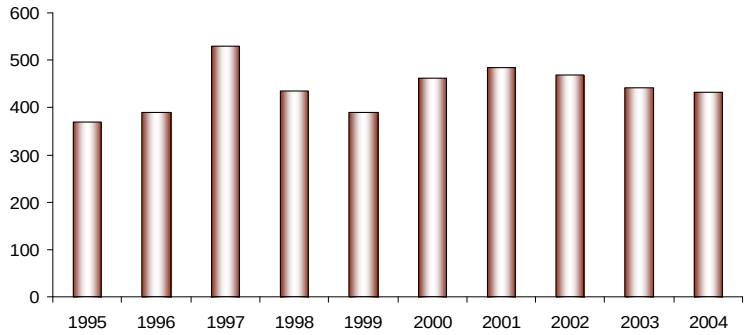


Figure A5.2 **Mexican exports to the European Union (Million of euros)**



Source: SE, in Villarello.

Appendix 6

Milestones in Mexican benchmarking process in time

October 2004
- Meeting between SAGARPA and FoodPLUS where a general strategy was established.
- Courses (5) for capacity building in five main cities (167 participants).

November 2004
- Meetings with SENASICA to define work programme and its implementation.

December 2004
- Start of collaboration with SENASICA for structuring of Product-related Standards.
- Workgroups with Departments of SENASICA.

February 2005
- Signing Letter of Understanding between SAGARPA and FoodPLUS for the recognition of Mexico Supreme Quality by GLOBALGAP.

January-June 2005
- Development of documentation, in collaboration with SENASICA and SAGARPA:
  - General Regulations;
  - CPCC;
  - Check lists;
  - Product-related standards.

February 2005
- Signing of contract with LATU Systems Mexico (Laboratory Systems), for the follow-up of acknowledgment process.

June 2005
- Benchmarking application (1st contract).

August 2005
- Sending of normative documentation (English and Spanish versions) to FoodPLUS.
- Preliminary Technical Review.
- Formal start of GLOBALGAP recognition process.

September 2005
- Adjustments and changes.
- Cross references.
- Peer Review.

October 2005
- Launch of Mexico Supreme Quality GAP in EUREP Conference, Paris, 17-19 October 2005.
- Independent Technical Review.

November 2005
- Independent Witnessed Assessment by DAP from Germany.

January 2006
- Technical Standards Committee Review.

May 2006
- Approval of 'México Calidad Suprema GAP' for fruits and vegetables.
- July 2006.
- EMA signs agreement with the International Accreditation Forum (IFA), so it can accredit certification bodies willing to certify according to Mexico Calidad Suprema-GAP standards.

October 2006
- Three Mexican certification bodies registered before the GLOBALGAP secretary to be accredited as certifying agencies for Mexico Calidad Suprema-GAP.

September 2007
- The first Mexican certification body accredited by GLOBALGAP.

May 2008

- Full Approval of Mexico Calidad Suprema-GAP, version 2.0 for Fruits and Vegetables; according to GLOBALGAP IFA version 3.0 standards (options 1 and 2).

July 2008

- First Mexican Certification Body receives accreditation for the Mexico Calidad Suprema-GAP protocol by EMA.

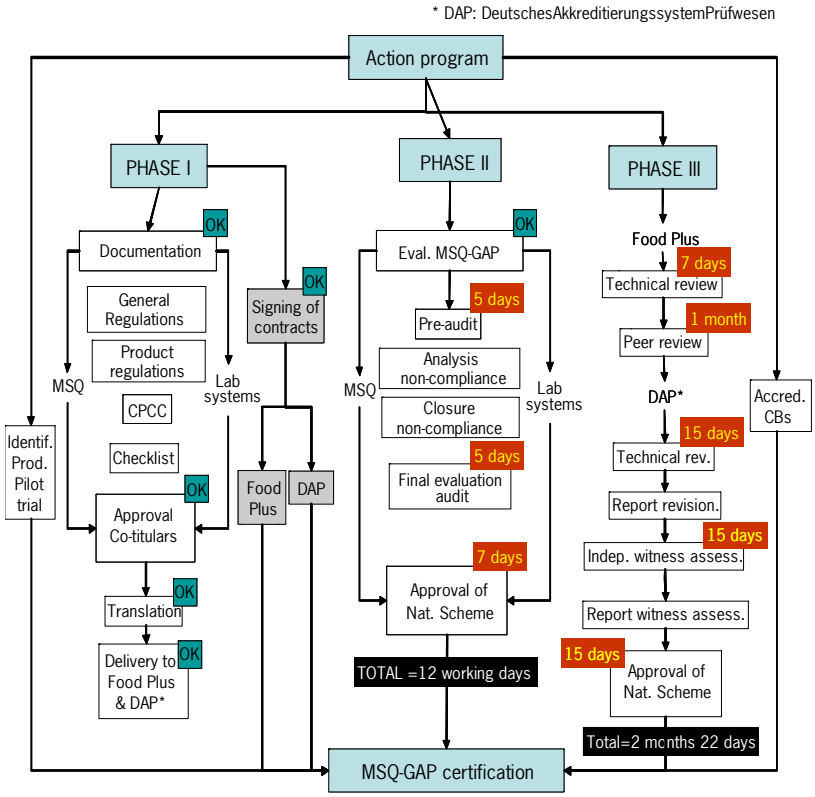
November 2008

- Second Mexican Certification Body receives accreditation for the Mexico Calidad Suprema-GAP protocol by EMA.

Appendix 7

Benchmarking process in Mexico

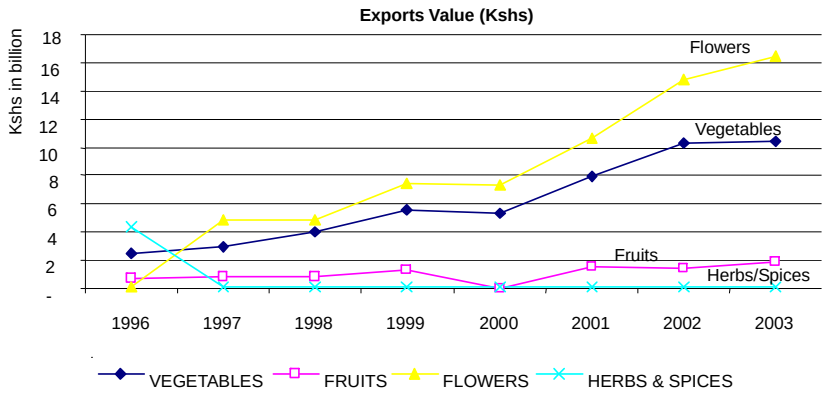
Figure A7.1 **The Benchmarking process Action Programme Mexico**



Appendix 8

Developments in horticultural sector of Kenya and KenyaGAP

Figure A8.1 **Exports value of Kenya horticultural products 1996-2003**



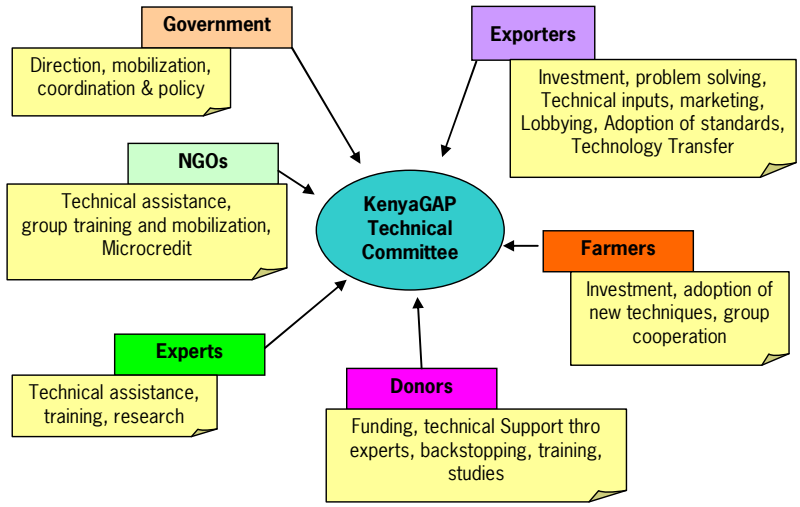
Appendix 9

KenyaGAP Technical Committee

The mandate of the KenyaGAP Technical Committee is to establish an interpretative guideline for the GLOBALGAP Standard for Fruits and Vegetables for Kenyan smallholders and to facilitate producers to achieve sustainable compliance. The terms of reference of the Committee are:

- Develop a technical interpretative guideline for GLOBALGAP compliance for smallholders in Kenya;
- Establish an auditable checklist for the technical interpretation;
- Develop a generic risk assessment template for use by smallholder farmers, following the principles of a practical experienced based generic Hazard Analysis Critical Control Point assessment approach;
- Interface the interpretive guideline and KenyaGAP;
- Develop a standard that is likely to succeed in gaining formal equivalence with GLOBALGAP.

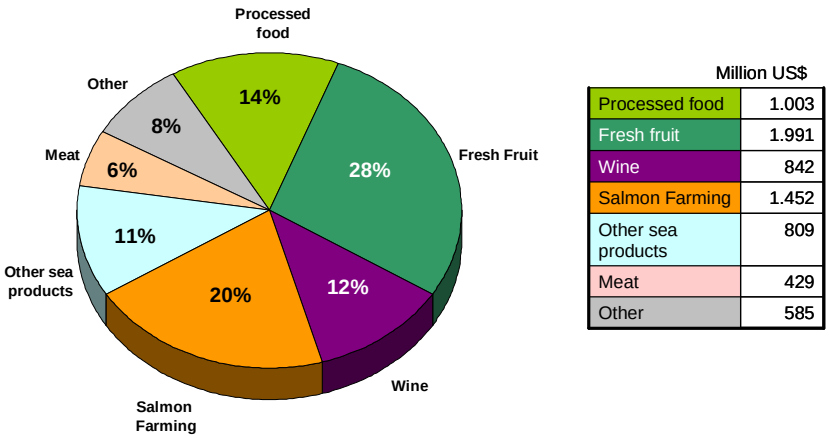
Figure A9.1 **Input of stakeholders in KenyaGAP**



Appendix 10

Horticultural exports Chile and ChileGAP standards

Figure A10.1 **Subsector participation in the Chilean Food Industry**



Million US$	
Processed food	1.003
Fresh fruit	1.991
Wine	842
Salmon Farming	1.452
Other sea products	809
Meat	429
Other	585

ChileGAP has 15 Control Points and Compliance Criteria on:

1. Traceability
2. Records
3. Varieties and Rootstocks
4. General Conditions on the Farm
5. Soil and substrata handling
6. Fertilisation
7. Irrigation
8 Handling of Phytosanitary Products
9. Basic Services for the Personnel
10. Harvest
11. Product Handling Areas
12. Management of Waste and Pollutants: Recycling and Re-Use
13. Labor Conditions and Labor Safety
14. Environmental Issues
15. Handling of Complaints

Appendix 11

Malaysia GAP (SALM) and ThaiGAP schemes compared

Hoffmann (2007) has made a comparing study of GAP schemes in Asia:

- Both Malaysia and Thailand have developed national GAP schemes:
  - In Malaysia, Farm Accreditation Scheme of Malaysia;
  - In Thailand, the Q-GAP.
- Both schemes were developed and are run by the Government (there is no third party certification)-Governments are judge and jury;
- Both schemes almost exclusively target the national market and national food quality and safety;
- Both schemes are recognized on a bilateral basis by the major trading partners (China and Japan-in the case of Thailand; and Singapore-in the case of Malaysia);
- Both schemes largely focus on pesticides use, with less attention to environmental issues, worker welfare, and microbial contamination;
- In both countries, products in conformity with the national GAP schemes are awarded a label (Q-mark in Thailand, and Malaysia Best logo in Malaysia); These labels, however, do not entitle to or guarantee a price premium;
- Governments in Malaysia and Thailand bear a considerable part of running costs of the two schemes: inspection, testing, certification and training costs are borne by the Government;
- Both Malaysia and Thailand pursue a multi-tier approach to national GAPs:
  - There are general GAP schemes, mostly targeting the national market and focusing on sound agro-chemical use;
  - In Thailand, the national GAP scheme is supplemented by a premium GAP in one region that eyes export markets.
- Large producers/exporters need to acquire the GLOBALGAP certificate for their business and take the lead.