

AADCP II

ASEAN-Australia Development Cooperation Program Phase II



Aligning GAPs in the Philippines and Vietnam



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Post address

The ASEAN Secretariat
Jl. Sisingamangaraja 70A
Jakarta 12110 – Indonesia

Phone: +62 21 726 2991
Fax: +62 21 7278 7252
Email: info@aadcp2.org

Website

<http://www.aadcp2.org>

The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the ASEAN Secretariat or the Australian Government.

Preface and Acknowledgements

The ASEAN-Australia Development Cooperation Program Phase II (AADCP II) is providing on-going support for the development and implementation of Good Agricultural Practices (GAP) in the ASEAN region. This report will capture some of the achievements and lessons learned from the experience of aligning ASEAN Good Agricultural Practices (GAP) with national GAP in the Philippines and Vietnam. Research for this report was undertaken during visits to the Philippines (February 16-17, 2015) and Vietnam (March 5-7, 2015).

AADCP II would like to thank all those who contributed to this report, whether through sharing their views and contributing to discussions about GAP in plenary or small group meetings, or on site visits. In the Philippines, particular thanks should be given to Ms. Mary Grace Rivere-Mandigma, Ms. Lara Navarro, Ms. Katrina Maminta and Mr. Jan Vincent Tecson for their help in organizing the meetings and site visit. In Vietnam we would like to thank Mr. Le Ngoc Nam and Mr. Pham Quang Huy for the same.

This report does not look at scientific or specific agricultural challenges associated with GAP implementation or its results. However, this overview will provide a helpful summary of key changes and challenges for on-going implementation of GAP ahead of the establishment of the ASEAN Economic Community in December 2015.

Acronyms & Abbreviations

AADCP	ASEAN – Australia Development Cooperation Program
AEC	ASEAN Economic Community
AMS	ASEAN Member States
ASEAN	Association of Southeast Asian Nations
BAFPS	Bureau of Agriculture and Fisheries Standards (the Philippines)
GAP	Good Agricultural Practices
Ha	Hectare
PhilGAP	Philippines GAP
VietGAP	Vietnam GAP

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OVERVIEW

In advance of establishing a single market in the Association of Southeast Asian Nations (ASEAN) region in December 2015, ASEAN Member States (AMS) are working to implement agreed sectoral standards. ASEAN Good Agricultural Practices (GAP) is the standard for the food and agricultural sector. This is a review of some of the benefits and changes in the fruit and vegetables sector that have come about in the Philippines and Vietnam as national standards have become aligned with ASEAN GAP.

In both the Philippines and Vietnam, responsible ministries have been working to promote GAP alignment and harmonization through the provision of services and activities including:

- Trainings for farmers on GAP standards
- The provision of incentives to encourage and help farmers become GAP aligned
- The establishment of GAP certification systems
- Awareness-raising about GAP

With GAP in place, the benefits expected to accrue to the fruit and vegetables sector include:

- Establishment of a single market without trade barriers
- Enlarged market within which farmers can sell their produce
- An improvement to food quality and safety throughout the region
- Increased consumer confidence in the quality of the food consumed
- A single standard for the growing and harvesting of all fruit and vegetables in the region
- Measures taken to address environmental degradation resulting from bad farming practices
- The rights, health and safety of farm workers are protected

Although being implemented voluntary, these benefits serve as motivation to governments and farmers to align their practices with GAP standards. In both countries GAP is now contributing to the production of higher quality produce and higher yields. It is also reducing danger to the public through the production of produce based on safe agricultural practices, and is creating a healthier work environment for farm workers.

Alongside these benefits are on-going challenges, many of which are common to both countries. These include:

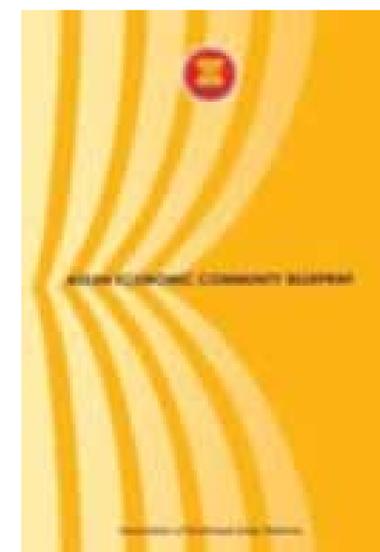
- The costs involved in preparing farms for GAP certification
- The extra costs of production for GAP certified produce
- The lack of an assured higher market value for GAP certified produce
- Difficulties in finding markets for GAP certified produce for small farms located a distance away from large markets
- A lack of infrastructure and appropriate transportation to get certified produce to the market
- A lack of consumer awareness about the benefits of GAP certified produce
- Challenge to convince consumers to pay premium prices for certified produce
- Weak links with and support of private sector for farmers

BACKGROUND



As the dawn of the ASEAN Economic Community (AEC) approaches, ASEAN Member States are working to ensure various common standards are in place and implemented throughout the ten-member region. Officially due to begin on 31 December 2015, the AEC will herald the establishment of a single market and production base amongst the Association's 600 million people.

With around 45 percent of workers in AMS employed in the agriculture, food and forestry sector, preparing for the AEC has been a priority since it was first announced in 2003. The AEC Blueprint oversees preparations for the AEC, the start date of which was brought forward from 2020 to 2015.



Establishing a single market and trading area requires AMS producers to adhere to a common set of regulations. Several benefits are expected to accrue from this single market. Firstly, the single market will allow for an increase in intra-ASEAN trade as produce can be marketed and sold across national borders without barriers. Applying a single standard within the barrierless trading area will also increase the potential market of individual farmers as they no longer need to be concerned by national regulations. With a single standard in place, consumers can be confident that the produce they purchase has been grown, harvested and delivered to the market in accordance with agreed good practices.

The common standard will contribute to the goal of attaining regional food security as the region becomes a single area from which to source food from. In the search for new markets, the common standard will ease and facilitate trade negotiations with non-ASEAN countries, as agreements can be negotiated at the regional rather than bilateral level, once ASEAN GAP can provide the needed quality assurance for importers. Trading globally will also encourage increased efficiencies within the sector as it adapts to become more competitive in the global market.

ASEAN GAP can be seen to reflect the increasing importance of the consumer in the crop to market food chain. As citizens and governments become increasingly concerned about the safety of food being consumed, ASEAN GAP can address these concerns, once accompanied by certification and compliance established through monitoring.

ESTABLISHING GAP

ASEAN has been working to improve the competitiveness and safety of its food and agricultural produce since 2003. Through the ASEAN–Australia Development Cooperation Program (AADCP) Australia has been supporting this work since 2004.

During the first phase of the program, AADCP supported the development of a Background Paper for a Strategic Plan of Action (SPA) on ASEAN Cooperation in Food and Agriculture (2005-2010), and supported the development of guidelines for the production of high quality fresh fruits and vegetables through ASEAN Good Agricultural Practices (ASEAN GAP).

A Strategic Plan for Sustaining the Development of ASEAN GAP was also developed under AADCP. Now in its second phase, AADCP II is currently supporting the development of the operationalization of standardized agricultural practices within AMS. This review is part of a Spotlight on Agriculture series looking at the development of GAP across AMS, describing the changes that have come about as a result of it.

ASEAN GAP was developed through a series of meetings held with representatives from AMS reviewing needs and global best practices. ASEAN GAP guidelines were endorsed in November 2006, creating a regional standard covering:

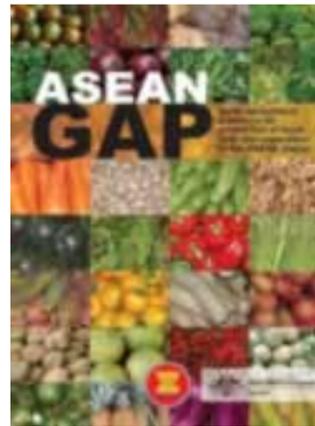
- Food production
- Harvesting
- Post-production

The aim was to eliminate the risk of hazards occurring at any stage within the food production chain. Hazards are seen as anything which can result in a negative impact on the produce, farm workers, consumers, or on the land on which the produce was grown. ASEAN GAP addresses these concerns with a holistic approach comprising four modules. The modules cover:

1. Food Safety
2. Environmental Management
3. Worker Health, Safety and Welfare
4. Produce Quality

Each module examines a wide range of issues that can impact the quality of fresh fruits and vegetables, such as the way it is harvested and handled post-harvesting. The modules cover similar issues but with a focus appropriate for each topic. Issues examined include: farm site history and management; the planting of materials; water; the use of chemicals; equipment for harvesting; storage and transport, traceability and recall.

Implementation of ASEAN GAP is voluntary among AMS and the process is managed by the appropriate ministries within each country. Each AMS is responsible for providing the resources and services needed to implement ASEAN GAP nationally, for example, the costs of administration and training associated with GAP implementation.



Benefits of ASEAN GAP

1. Promotes increased intra-ASEAN trade without barriers
2. Eliminates internal trade barriers in a region with a market of 600 million people
3. Sets a single standard for all AMS to abide by easing extra-ASEAN negotiations
4. Responds to consumer demand and promotes consumer awareness about food safety
5. Places food safety as a priority for farmers and all food supply chain stakeholders
6. Reduces health hazards to farm workers and consumers especially from chemical misuse
7. Minimizes microbial food hazards
8. Sets high standards for food traceability
9. Aims to address environmental degradation
10. Supports regional food security
11. Opens up market possibilities for farmers
12. Increases general awareness about the need for food safety

THE PHILIPPINES

Trade and food safety are the driving forces promoting alignment with ASEAN GAP in the Philippines.

To benefit from these, the Philippines aligned its own Philippines GAP (PhilGAP) with all four modules of ASEAN GAP by 2011. There are now 19 farms certified with the Department of Agriculture working to disseminate information about GAP to more farmers and increasingly, the private sector. In the Philippines, some best practices for supporting PhilGAP compliance emerge.

GAP According to BAFPS

“GAP approach aims at applying available knowledge to addressing environmental, economic and social sustainability dimensions for on-farm production and post-production processes, resulting in safe and quality food and non-food agricultural products.”

From the Bureau of Agriculture and Fisheries Product Standards, the Philippines

1. Supporting Trade Promotion

Food safety assurance is seen as the language of trade, and with required standards implemented, trade should not need to be disrupted, as happened in 2012 when an AMS imposed quality assurance for the importation of shallots without warning. To prevent such a recurrence, the Philippines Government is drawing up food safety guidelines for an increasing number of fruits and vegetables – especially those with export potential.

The Philippines has had the opportunity to focus on guidelines for individual fruit and vegetables, in addition to general GAP standards. Guidelines developed and being developed include:

- Corn (2007)
- Mangos (2009)
- Fruits and vegetables – generic (2011)
- Onions (2013)
- Bananas (2013)
- Papaya (2015)
- Cassava (2016)

2. Establishing GAP Teams

Establishing Regional GAP Teams has helped disseminate information to farmers about GAP standards and the benefits and process of GAP certification. Having teams at the regional level is seen as a way to fast-track GAP implementation, with people on the ground to provide trainings and technical assistance at the local level.

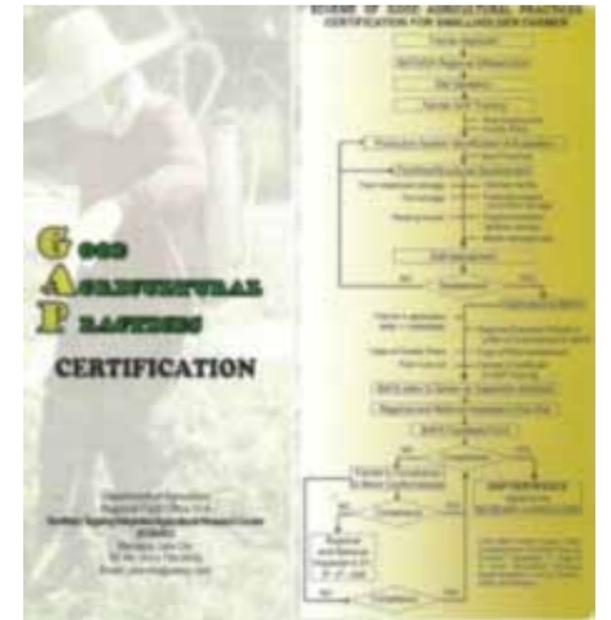
3. ‘Caravans’ for Awareness-Raising

To increase publicity and awareness about GAP amongst the private sector and civil society, the Department of Agriculture has established one team in each of the country’s 15 regions to undertake tours and roadshows to promote understanding of GAP. The establishment of Regional GAP Teams ensures that stakeholders are aware of GAP, supporting a bottom-up approach to awareness-raising at the local level.

“It makes me happy to know that by following GAP standards, we are producing safe food. That is good for consumers, the environment and us” - **Jonathan Ocampo, RAI Farms**

4. Certification Guidelines System Established

Clear guidelines have been developed to explain the certification process, and officials have been trained to support farmers obtain certification. With the government covering administrative costs of certification, as well as technical assistance to farmers preparing for certification, interest in GAP is now growing. Many farms are not yet ready for GAP certification, but there is increasing awareness amongst farmers about how GAP promotes food safety. Demand for trainings in GAP compliance is growing and 73 farms, growing various produce, have applied for certification. Nineteen farms have already been PhilGAP certified.



To improve food safety, the problems GAP standards are addressing include:

- The separation of pesticides and fertilizers
- Cleanliness of tools and machines
- Ensuring the presence of proper sewerage and waste disposal systems
- Establishing record keeping and traceability of produce
- Provision of health and safety care for farm workers
- Containing the presence of farmed and wild animals in the vicinity of agricultural produce

Increasing farmer awareness about these issues is important for ensuring safe food for all, even if farmers do not proceed with certification.

Working to Prevent Public Health Incidents

The absence of good health and safety practices can result in short and long-term health problems. In the long-term, bad practices can contribute to environmental degradation, an overuse of chemicals, and a detrimental impact on the health of people resulting from excessive chemical residue on crops.

Occasionally bad practice can have an immediate impact. The most well-known example is the 2005 Bohol Incident in which 28 school children died after consuming cassava contaminated by carbamate pesticide. Promoting GAP has helped increase awareness about the dangers of chemicals used on farms, and the importance of keeping chemicals clearly labelled, stored safely, and used correctly.

Without proper control of pesticides, importers of produce can temporarily suspend the import of goods. This happened to the Philippines in 2008 and 2010 when a company stopped the import of okra and mangos until the issue was addressed.

VIETNAM

VietGAP was launched in Vietnam in 2008 and there are now over 17,000 hectares (ha) of fully certified farmland. The government has been keen to emphasize food safety to protect the health of citizens, and in some places national policies have been supported at the local level. For example, there is a requirement that all fruit and vegetables sold in Ho Chi Minh City be GAP certified by 2015 - the national Year of Food Safety – and this is increasing demand for certified produce.

VietGAP

Increased trade and ensuring that Vietnam can compete in regional and global markets are important benefits to be gained from GAP. VietGAP is already accepted by Japan for the importation of mangos and there is potential for bananas to also be accepted. With Japanese companies investing in Vietnamese farms, the rewards of GAP appear to be paying off.

Alongside this, GAP is a tool to help arrest environmental degradation. The problem first became evident in the 1980s as a result of over-use of chemicals in farming which led to a steep decline in the quality of water as well as drops in insect, bird and fish populations. Protecting the public from the dangers of chemical residue was also a priority.

VietGAP is aligned with ASEAN GAP but with some different emphasis. For example, ASEAN GAP is seen to focus more on produce quality whereas VietGAP is more concerned with food safety. In addition, VietGAP does not focus on varieties and the source of varieties of crop whereas ASEAN GAP does. And whereas ASEAN GAP includes the monitoring of products, VietGAP does not.

National and Local Government Initiatives to Support GAP



The government has developed a range of policies to support GAP and has tried to create integrated policies that strengthen the development of the value chain. This includes outreach to the private sector to encourage their active participation in the marketing of certified produce.

There are also policies to allow farmers to obtain capital at low interest rates from the banking sector to support investment farm expansion. In Ho Chi Minh City, which has a policy to support urban agriculture, a farmer can obtain 100 percent credit at zero percent interest for expenditures

relating to infrastructure, for example, the upgrading of greenhouses. So far, 11 households have been recipients of such credit, eligible to farmers with GAP certification and a business plan.

Other local administrations are supporting GAP with strategic incentives. For example, in Lam Dong province, trainings, consultancies and the costs of certification are all provided for free by the local government. Funds have also been made available for infrastructure development and to set up model farms to encourage certification.

Policy No.	Title and Issues	Date of Issue
01/2012/QD-TTg	Decision of the Prime Minister on policies to support the application of good agricultural practice in agriculture, forestry and fisheries. <ul style="list-style-type: none"> • Support to baseline surveys, soil, water analysis to determine the VietGAP production areas; roads, irrigation system, waste treatment system, etc. • Support for training, first certified, application of new techniques in the use of pest resistant varieties, biological pesticide, IPM, ICM. • Support for some trade promotion activities; organizations and individuals to invest in VietGAP production projects. 	9 January 2012
53/2012/TT-BNNPTNT	Circular of the Ministry of Agriculture and Rural Development list of agricultural products and aquaculture products supported under Decision No. 01 / 2012 / QD - TTg dated 9/01/2012 of the Prime Minister on policies support the application good agricultural practice in agriculture, forestry and fisheries	26 October 2012
42/2013/TTLT-BNNPTNT-BTC-BKHDT	Joint Circular of the Ministry of Agriculture and Rural Development, Finance, Planning and Investment Guide to the implementation of Decision No. 01 / 2012 / QD - TTg dated 9/01/2012 of Prime Minister on policies support the application good agricultural practice in agriculture, forestry and fisheries	16 October 2013
49/2013/TT-BNNPTNT	Circular of the Ministry of Agriculture and Rural Development Guidelines for determining the criteria for convergent crop production area qualified food safety	19 November 2013
54/2014TT-BNNPTNT	Circular Regulations recognized the other standards of good agricultural practice to apply to receive support policies in agriculture, forestry and fisheries	30 December 2014

In Vietnam, a certification system has been in place for several years. The cost of registration is around USD 1,000. This sum is usually paid by the farmer, but sometimes the farmer receives support to cover this cost either from an outside party such as a company to which the farmer supplies produce. As certification is a process which takes time to prepare for, the failure rate for certification is low.

Promoting Safe Food and Certification

To promote good fruit and vegetable agricultural practices and certification, the Asian Development Bank has been supporting the Ministry of Agriculture and Rural Development's "Quality and Safety Enhancement of Agricultural Products and Biogas Development Project" (QSEAP). This project runs from 2009-2015 and is supporting vegetable production in 16 provinces. Project objectives include:

- Increased vegetable production
- Increased farmer income
- Increased health and safety for produce

Benefits of GAP

GAP certification has helped address food safety needs and increase the number of potential buyers for farmers. It has also resulted in improved taste and quality of produce. Much of this has come about through applying best practices for the use of fertilizers and pesticides. Before participating in GAP programs, most farmers used chemicals without technical knowledge or assistance, often with a detrimental impact to the quality and quantity of their crops.

Activities include: i) the development of areas for safe vegetable production in each commune of the provinces in which they are working; ii) applying VietGAP standards in demonstration sites; iii) providing infrastructure, for example roads and sanitation, to communes to help them achieve GAP standards; iv) providing training for farmers about GAP standards, including training for other stakeholders within the supply chain; and v) certification for farmers. Key results to date include:

- Over 100 training classes for 3,000 farmers held, with 360 farmers going on to get their farms certified
- Five trainings for trainers held for 100 technical staff at the district level to increase awareness of certification at this level
- Over 160 companies and cooperatives have attended trainings, in addition to trainings for vegetable farmers

Many farmers who have participated in certification training have gone on to become certified. For example, of the 3,000 grape farmers in Ninh Thuan province, 28 are now exporting to Europe and a further 128 have the potential to do so.

QSEAP is aware of shortcomings with certification, including only marginally higher returns for GAP certified produce, and continued low consumer awareness of GAP. QSEAP hopes to address the issue of awareness-raising in a second phase of QSEAP scheduled to begin in 2015.



As a result, high levels of chemical residue were frequently found on produce. With GAP and stringent testing, this is now a less serious concern. In the province of Lam Dong, prior to 2010, 10 percent of samples were found to have high residues. This is now down to four percent, and for GAP crops, under one percent. By using chemicals correctly, one farm certified in 2013, was able to more than double both productivity per hectare and the market price of the crop per kilogram whilst decreasing the use of chemicals. The correct chemical regime is particularly important for taste for the quality of sensitive fruits such as pomelos and mangos.

In Vietnam, VietGAP has made a significant contribution towards changing farming practices and increased awareness about food safety amongst farmers. Prior to 2009, farmers paid little attention to this issue. However, as a result of VietGAP, farmers now pay careful attention to productivity, quality and variety. This has greatly changed the supply side of the market, although on the demand side, consumer understanding of the efforts and advantages of GAP is still limited.

Some markets, particularly certain supermarkets and hotels, are insisting on using only certified goods. One supermarket chain displays VietGAP certified food clearly, separated from non-certified produce, and makes sure there is information about the source and origin of the produce. With such practices, the origin of the produce is guaranteed based on the traceability and tracking systems employed with GAP certification. This tracking system runs from the farmer in the field to the post-harvest production chain which sees vegetables sorted, transported and delivered to the supermarket in a tightly controlled, closed system.

"I don't get higher prices for GAP produce, but I get more demand and more constant orders" - **Chu Thi Bich Ha, PT Farms**

The higher costs for GAP certified crops are in part because of the tracking system. Traceability throughout the process is tight, all the way from the farmer who is required to keep a field diary covering the sourcing of seeds, growing and harvesting, to post-harvesting monitoring. The system includes the depot where food is sorted for distribution and random checks for residue take place. Although contributing to increased costs, it ensures it is easy to trace produce source and history.

The issue of labeling for GAP certified produce is sometimes seen as unclear. Certified produce should carry the VietGAP logo, but sometimes it does not and instead relies on supermarket signage. Some produce also carries multiple logos based on other types of certification available. For consumers with an already low awareness of GAP, this contributes to confusion as they are unaware of the meaning of the multiple markings for food.

"GAP goods don't get much higher prices but it does reduce the amount of pesticides used, and that helps to keep costs down." - **Phan My Thanh Nguyen**

Lam Dong – Vietnam's Fruit and Vegetables Garden

Lam Dong, sometimes referred to as the high-tech capital of agriculture in Vietnam, is a province in the Central Highlands. Lying in the southern part of the Central Highlands at 800-1,000 meters above sea-level, it covers just under 10,000 square kilometers. Possessing a complex topography and many kinds of climates and soil, Lam Dong is perfect for agriculture and has become a center for domestic and export quality fruit and vegetable production. Within the province there are 50 farms, 11 agricultural cooperatives, and 35 collaborative groups consisting of tens of thousands of vegetable farms.

Currently 56,000 hectares (ha) of land is dedicated to fruit and vegetables, producing 1.8 million tons of produce per year. Of this, 95 percent goes to national markets outside of the province. A further 150,000 tons goes for export to regional markets such as Cambodia, China, Japan, Lao Republic, Singapore South Korea, and Singapore; some produce goes as far afield as Canada. Vegetables grown include pumpkin, sweet potatoes, spinach, cabbage, onion and capsicum sweet peppers. Fruits include strawberries and raspberries.

To date, 1,800 ha of land is GAP certified (of which only 70 ha is for fruit) producing an output of 130,000 tons, equivalent to 7.5 percent of total vegetable production in Lam Dong. However, based on the approved Master Plan for the province, by 2020, 12,500 ha of land should be GAP certified, producing 2 million tons of produce.

It is hoped that with GAP certification more produce will be exported overseas and more produce will fill the demand created for VietGAP certified produce from supermarket chains and other large scale purchasers.

CHALLENGES IN IMPLEMENTING GAP

The Philippines and Vietnam are working to support farmers certify for GAP with a clear and simple to understand certification process. The Philippines Department of Agriculture with Bureau for Agriculture and Fisheries Product Standards and Vietnam's Department of Agriculture and Rural Development are pro-active in developing materials and guidelines for fruits and vegetable certification, and promoting public awareness about GAP. However, both face challenges to increase the level of GAP certification.

1. Bridging Ideals Promoting GAP and the Situation on the Ground

At the policy level, increasing intra-ASEAN trade is the driving force behind GAP; at the country level, promoting food safety is a significant motivating force for GAP. However, for farmers, GAP certification is a process that is market driven with the decision of farmers on whether to become certified based not on the promise of export markets or even food safety, but whether certification will result in a higher market value for their produce.

2. Lack of Economic Modeling

Producing GAP certified, high quality produce is often said to increase the market value of crops, and therefore the income potential for farmers. However, in both the Philippines and Vietnam there is a lack of economic modeling to confirm this assumption, so the potential monetary benefits for implementing GAP are unclear.

Improving food safety – and having a public drive to improve awareness of safe food – is an important public good, but financial modeling of GAP certification could help generate clearer indicators of where the financial benefits of GAP could accrue, for example, by focusing on particular fruits and vegetables, the geographic location of farms, or the ability to guarantee minimum produce output to make certification viable and sustainable.

3. Unclear Incentives for Farmers to Certify

Connected to the lack of data about the potential advantages of becoming GAP certified, most farmers currently have little incentive to become GAP certified. Although the certification process itself is often free, farmers incur expenses to meet GAP compliance standards, for example, to ensure proper hygiene and sanitation facilities are present on the farm, as is necessary storage space and packing equipment. The cost of compliance depends on the level of improvements needed to the farm, but in the Philippines average Pesos 75, 000 (USD 1, 700), a significant expense for small holder farmers in a situation where it is unclear whether certified produce will sell at a premium price.

4. Low Potential to Export

In an increasingly integrated intra-ASEAN market, there may be potential for selling produce into this wider market without barriers. But it is beyond the capacity of most farmers to find out how to locate, identify and benefit from these markets. In the Philippines and Vietnam, a large percentage of farms are under three hectares, lack good supply chains, and find it difficult to get their produce even to the local market; these farmers will find it even more difficult to export their produce to the wider region without being tied in to region-wide food supply chains.

5. Linkage to Supply Chains Needed

With certification, it is important to ensure that all sectors involved in the food chain are inspected and monitored for compliance. It is also important to build stronger links with all stakeholders in the food supply chain, particularly distributors and retailers, to ensure farmers have a market to sell their produce on to.

In both the Philippines and Vietnam there is a need to strengthen the relationship between the private sector and farmers, encouraging the private sector to help farmers find new markets, and promote the importance of GAP. This could help support higher returns on produce, a key to GAP sustainability. To date, neither the private sector nor the non-government sector has played much of a role in bridging these needs. As a Regional GAP Team member commented, "GAP is about being compliant not just compliance, and we have to help farmers become more entrepreneurial". Thus, farmers need help not just with producing quality produce but also to become more creative in ways to market it.



A challenge for farmers working with the private sector is that the quantity and quality of produce must be stable. While quality is certified by GAP, many factors impact quantity, including unpredictable weather and poor roads, with only a limited number of farms supported by infrastructure that allows them to become suppliers to the private sector.

6. Aligning ASEAN GAP with extra-ASEAN and sectoral GAPs

ASEAN GAP is a standard for fruit and vegetable produce within the ASEAN region to allow for the free flow of produce between AMS. Many AMS farmers already produce for the extra-ASEAN market, their produce needing to be compatible with the generally higher standards of the importing country. As such, there is a need to see how ASEAN GAP can be aligned with other international GAP Standards to help integrate ASEAN produce better into the global market.

GAP IN THE FIELD

1. Building Bridges to the Market

GAP standards promote food safety through the production of quality crops. National and local government departments are putting much effort into supporting farmers in this endeavour. But the food supply chain contains many stakeholders, and linking farmers with markets is challenging.

Fresh fruit and vegetables need to be delivered to the market in the quickest possible time so they can be sold when at their best and for the best possible price. This is even more important with GAP certified produce as the mark-up on it averages only a few percent higher than non-GAP certified produce, yet GAP certified farmers need to recoup the costs of being GAP compliant.

Linking farmers to the market is critical to support this, and difficult to achieve. Farmers rarely have the wherewithal to make advantageous linkages with the market side of the food supply chain, so generally only farmers with the potential to produce quality goods, and based in favourable locations, are of interest to the private sector.

Non-profit business associations or farmers' interest groups can help bridge the gap between the supply and demand-side of the market by introducing farmers to wholesalers and retailers, and by becoming key intermediary themselves.

OURFood is one such example. Supported by international donor funding from Germany and partnering with national and local organizations, OURFood aims to "Optimize and upscale roles in the food supply chain". OURFood believes that over 40 percent of SMEs are involved in the agricultural sector, yet they only contribute about 10 percent to GDP. As such, there is enormous potential in the agricultural sector if it can be realized. OURFood tries to do this by improving the competitiveness of farms in Cebu and Negros, to integrate them into the food supply chain through training and a qualification programs.

OURFood understands the full range of needs and challenges for farmers: farm-to-market roads, marketing, financing, technology, irrigation facilities, farm implementation tools and post-harvesting. To address these needs, they have developed an integrated, comprehensive framework.

Through this model, OURFood not only helps with standard GAP related obligations, such as establishing a closed and traceable supply chain in accordance with GAP standards, but also helps to link local farmers with traders, retailers and institutional buyers.



Working with 120 farmers in Negros Occidental and Oriental as well as in Dalaguete, Cebu, they have helped link GAP certified farmers with high end supermarket chains that can sell a range of 24 products at a premium price. By 2017, they are planning to work with 500 farmers. It is this linkage role that is so important to create GAP sustainability, but challenging to replicate without the pro-active support of business minded associations keen to support farmers such as OURFood.

2. Quality Dragons in Mabalacat

Richfield Agrifarms (RAI) Inc is based in Mabalacat, Pampanga, Central Luzon, around 100 km from Manila. The main output of the farm is the high quality red pitaya dragon fruit, harvested nine times a year. The farm, which produces around 250,000 kg of fruit a year, was PhilGap certified in July 2014, and has since been able to sell to high-end hotels in Manila, including the Shangri-La and Holiday Inn. The farm, which covers 15 hectares, benefits from proximity to this close-at-hand market, with GAP certification allowing RAI to carve out a segment of this niche market for itself.

For RAI, certification was not too arduous as the farm was newly established in 2010. As an organized and well-managed farm, only minor changes were needed to the way it worked to ensure compliance with PhilGAP standards, such as keeping free range chickens away from the dragon fruit. Throughout the process of certification, RAI found the Bureau of Agriculture and Fisheries Standards (BAFPS) helpful and quick to respond to its needs. Thus for RAI, the costs involved of certification are outweighed by the benefits it brings.

For RAI, certification was worth the effort, and farm manager Jonathan Ocampo is pleased how GAP compliance ensures they now use pesticides, fertilizers and composting in a better way. However, certification has not been a silver bullet to profitability. RAI cautions that the value added to its produce is still not high, particularly because of changes in the weather that create a great deal of uncertainty. Much effort is needed to ensure the fruit is harvested at the optimal maturity stage as well as guarantee fruit cleanliness. To cover for uncertainty in income, RAI are constantly trying to maximize land use, for example by adding additional plants where possible, and introducing new crops such as cherry tomatoes. But on a personal level, satisfaction is high, knowing that they are producing high quality produce for the market.

Positives and Negatives of GAP Certification according to the Farm Manager

Positives

1. Gives produce a cache/status
2. Work better and closer with others in the food chain, e.g. distributors and local markets such as hotels
3. Creates a better and safer work environment for crops (e.g. around pesticides and fertilizers) and staff
4. BAFPS supportive, helpful and quick to respond to needs and requests regarding certification
5. Government covers cost of certification process
6. GAP has promoted increased worker efficiency and productivity

Negatives

1. Monetary value-added of GAP certified crops not guaranteed
2. Costs involved in keeping the farm compliant makes breaking-even financially difficult
3. Cost of labour in-line with worker standards difficult to meet
4. Limited ways to expanding output and improve efficiency to balance the higher expense of producing GAP certified produce
5. Continual monitoring of labour needed to ensure all workers comply with GAP standards
6. GAP standards cannot safeguard income from natural factors, for example, the weather

3. Fruit and Vegetable Farms of Lam Dong

Mr. Tung Nguyen has three hectares of strawberry farms in Lam Dong. Grown under plastic, the strawberries are grown on raised beds to keep the fruit clean and reduce the risk of attack from insects. The well-formed and rich-tasting strawberries can sell for a premium at Ho Chi Minh City, the dominant nearby market. With his high-end GAP certified strawberries, Tung Nguyen can ask for twice the price of non-certified strawberries. Thus for him, certification is worth the effort.

However, operations do not always proceed without a hitch. After a prolonged dry season, he is now spending around USD 10,000 on digging a new well to tap groundwater. Additional ventilation is also being installed to control the temperature in the growing zone, the best tasting strawberries require strict temperature control. At the same time, strawberry output will decline as his attempt to increase strawberry production by growing in parallel rows with an additional row at a higher level resulted in higher level strawberries blocking the sunlight from the lower-level plants. The higher level beds of strawberries are now being removed.



A short distance away from the strawberry farm is Ms Chu Thi Bich Ha, the Technical Manager of Phong Thuy (PT) Farms. PT Farms is one of eight agro-firms in Duc Trong district granted VietGAP certification by the Lam Dong Department of Agriculture and Rural Development. The farm is also a VietGap pilot project for organic vegetable growing under a Food and Agricultural Products Quality Development and Control Project (FAPQDCP) funded by the Canadian Government. PT Farms received certification in 2009 after satisfying criteria including soil sample tests, implementing field record keeping, organizing trainings in pesticide use, providing training for workers and providing medical checks for workers. A commercial farm, they buy from local farmers who all need to satisfy the same criteria. Nine of its satellite farms are now VietGAP certified, producing crops from 61 ha of farm, up by 21 ha since 2012.

This has increased their output from 15 tons to 25 tons over the same time. With GAP certification, PT Farms is now able to receive and fulfill both new and bigger orders. Seeing the benefits, more farms are keen to join the PT Farms network.

As with much produce, their crops do not receive much of a market premium. However, this is compensated for by having more secure and stable orders. An important source of orders for PT Farms is supermarket chains and industrial parks, both of which want to secure high quality produce for customers and their workers respectively. It has also allowed PT Farms to develop its own integrated food chain, and is planning to start the export of onions to Japan.

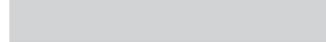
ANNEX 1: CONTRIBUTORS

The Philippines

- Ms Karen Kristine Roscom** - OIC Executive Director / Bureau of Agriculture and Fisheries Standards
- Ms Lara Navarro** - Senior Science Research Specialist / Bureau of Agriculture and Fisheries Standards
- Ms Edralina Serrano** - Technical Working Group member/ University of the Philippines- Los Baños
- Mr Rodel Maghirang** - Technical Working Group member/ University of the Philippines- Los Baños
- Ms Adelina Losa** - Regional GAP Team member / Department of Agriculture Regional Field Office 5
- Ms Remedios dela Rosa** - Regional GAP Team member / Department of Agriculture Regional Field Office 2
- Mr Angel Tulabut** - GAP Inspector / Department of Agriculture Regional Field Office 3
- Mr Marvin Quilates** - Focal Person / Department of Agriculture Regional Field Office 1
- Mr Noelito Villa** - Local GAP Team member / Department of Agriculture Regional Field Office CAR
- Mr Jegie Malicdem** - GAP Inspector / Department of Agriculture Regional Field Office 1
- Mr Michael Iledan** - GAP Inspector / Department of Agriculture Regional Field Office IVB
- Ms Rosemarie Olfato** - Assistant Manager / Department of Agriculture Regional Field Office IVA – Southern Tagalog Integrated Agricultural Research Center
- Ms Virgilia Arellano** - Researcher / Department of Agriculture Regional Field Office IVA – Southern Tagalog Integrated Agricultural Research Center
- Ms Teresa Pono** - Project Manager / OURFood – AFOS Foundation
- Mr Don Traje** - Agri Coordinator / OURFood – AFOS Foundation
- Ms Esperanza Uy** - Senior Agriculturist / Bureau of Plant Industry – National Pesticide Analytical Laboratory
- Mr Johnny Concon** - Agriculturist / Department of Agriculture Regional Field Office 13
- Ms Adriel Carabeo** - Agriculturist I / High Value Crops Development Program
- Dr Eduardo Lapuz** - Chief - Regulatory Division, Department of Agriculture Regional Field Office 3
- Ms Marilyn Velarde** - Focal Person, Department of Agriculture Regional Field Office 3
- Mr Darwin Pecjo** - Operations Manager, Richfield Agrifarms Inc
- Mr Jonathan Ocampo** - Farm Supervisor/Manager, Richfield Agrifarms Inc

Vietnam

- Ass Prof. Dr Pham Van Du** - Deputy Director General, Dept of Crop Production, Ho Chi Minh City
- Nguyen Van Doan** - Officer, Department of Crop Production, Ho Chi Minh City
- Pham Quang Huy** - Deputy Head, International Integration and Investment Division, Min of Agriculture and Rural Development, Ha Noi
- Le Minh Dung** - Director, QSEAP Project in Ho Chi Minh City
- Tran Phuong** - General Director, FCC Control and Fumigation Joint Stock Co., Ho Chi Minh City
- Phan My Thanh Nguyen** - QMR, FCC Control and Fumigation Joint Stock Co., Ho Chi Minh City
- Nguyen Hong Phong** - General Director, Phong Thuy Agricultural Product Trade Manufacturing Company Limited (PT Farms)
- Chu Thi Bich Ha** - Technical Manager, PT Farms
- Tung Nguyen** - General Manager, Tung Nguyen Strawberry Farm
- Nguyen Van Luc** - Director, Subdepartment of Quality Assurance for Agro-Forestry-Fishery Products of Lam Dong Province
- Nguyen Trong Nghia** - Auditor, Ho Chi Minh Center for agricultural Counselling and Support for restructuring





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