

ADOPTION OF GOOD AGRICULTURAL PRACTICES (GAP) IN THE PHILIPPINES:

Are mango and banana farmers
ready?

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What is GAP?

- GAP or Good Agricultural Practices are "practices that address environmental, economic and social sustainability for on-farm processes, and result in safe and quality food and non-food agricultural products" (FAO 2003).

**PRODUCE
QUALITY**

**FOOD
SAFETY**

**GAP
ELEMENTS**

**ENVIRONMENTAL
MANAGEMENT**

**WORKERS'
HEALTH,
SAFETY AND
WELFARE**

GAP Elements



FOOD
SAFETY

- Human sewage is not used for production of any fresh produce destined for human consumption.
- Harvested produce is not placed in direct contact with soil or the floor of handling, packing or storage areas.
- Domestic and farm animals are excluded from the production site, particularly for crops grown in or close to the ground, and from areas where produce is harvested, packed and stored.
- Toilets and hand washing facilities are readily available to workers and are maintained in a hygienic condition.
- The application of chemicals is recorded for each crop, detailing the chemical used, reason for application, treatment location, date, rate and method of application, withholding period, and operator name.

GAP Elements



PRODUCE
QUALITY

- Employers and workers have been trained to a level appropriate to their area of responsibility for chemical application.
- Produce is removed from the field as quickly as possible.
- Equipment, containers and materials that contact produce are regularly cleaned and maintained to minimize mechanical damage.
- Liners are used to protect produce if containers have rough surfaces.

What is GAP?

WORKERS' HEALTH, SAFETY AND WELFARE

- The hygiene instructions are visibly displayed: provided by way of clear signs (pictures) or in the predominant language(s) of the workforce.
- Facilities and first aid measures are readily available to treat workers contaminated with chemicals.
- Use of suitable protective clothing.



What is GAP?



ENVIRONMENTAL
MANAGEMENT

- The application of chemicals (ground and aerial) is managed to minimize the risk of spray drift to neighboring properties and environmentally sensitive areas.
- Water discharged from the property, including waste water from harvesting, cleaning and handling operations, is managed or treated to minimize off site environmental harm.
- The generation of offensive odor, smoke, dust, and noise is managed to minimize the impact on neighboring properties.

What is GAP?

- EurepGAP is a common standard for farm management practice created in 1997 by several European supermarket chains and their major suppliers.
- The aim was to bring about conformity to different standards of suppliers, which had been creating problems for farmers.

What is GAP?

- In 2007, EurepGAP changed its name to GLOBALGAP to reflect its increasingly global scope.
- ASEANGAP, developed by the ASEAN Secretariat (with member country representatives), was launched in 2006 as a standard for good agricultural practices during the production, harvesting and post-harvest handling of fresh fruits and vegetables in the ASEAN region.

What is GAP?

- The purpose of ASEANGAP is to enhance the harmonization of national GAP programs within the ASEAN region, enhance fruit and vegetable safety for consumers, sustainability of natural resources and facilitate the trade of fruits and vegetables regionally and internationally.

Research Questions

- What is the extent of adoption of GAP for selected signature products in the Philippines?
- What are the drivers of and constraints to GAP adoption?
- What is the nature of the business/farms which have adopted GAP?
- Are the GAP adopters really performing better in terms of profitability and sustainability?
- What are the costs and risks associated with GAP adoption?

Commodities/Study Areas



- Banana – Davao Region
 - The Philippines is the world's second biggest banana exporter and the only Asian country among the top five exporters which includes Ecuador, Costa Rica, Colombia, and Guatemala.
 - Davao accounted for the majority of the country's total volume of banana production (41.8%) and total area planted to banana (19.4%).

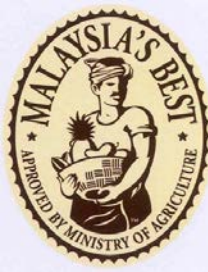
Commodities/Study Areas

- Mango – Zambales
 - Mango is the country's third most important fruit export in terms of volume of production and area (next to banana and pineapple).
 - In 1995, the Guinness Book of World Records listed Zambales as producer of the sweetest mango (Sweet Elena) in the world.



GAP in other countries

- Japan - EurepGAP-certified -Katayama Apple Company and Wagoen, an agricultural producers' cooperative (composed of about 90 producers)
- Malaysia - in 2005, 930 total applicants, 150 farms are certified; “Malaysia’s Best” brand – internationally accepted mark
- Thailand - GAP-certified farms in 2008 - 169,886 farms; 50,000 rice farmers GAP-registered
- Taiwan - 988 fruit farmers, 703 vegetable farmers, 954 organic farms, 32 tea farmer groups
- 217 enterprises were operating in accordance with ChinaGAP and 116 enterprises had already been certified for ChinaGAP



Status of GAP in the Philippines

- GAP certification in the Philippines is still in the infancy stage.
- It was only in 2005 when the guidelines on the certification of GAP for fruits and vegetable farming in the Philippines were formulated and enforced.

Status of GAP in the Philippines

- 4 GAP-certified farms in the Philippines
 - Del Monte Philippines (company and outgrowership program) - pineapple
 - Basic Necessity, Inc. - lettuce and herbs
 - Cardava Integrated Inland Farming - cardava banana
 - Leonie Agri Corporation - lettuce, Chinese kangkong, camote tops, basil, tarragon, saluyot, okra, eggplant, tomato, pepper, pole sitao, sweet corn, cucumber, squash, bottle gourd, sponge gourd, mustard, pechay, rice, lagundi

Status

- 7 GAP certification applicants:
 - pineapple farm - single proprietorship - Daet, Camarines Norte
 - vegetable farm - single proprietorship - Dahilayan Bukidnon
 - pineapple farm - growers cooperative – Labo, Camarines Norte
 - mango farms (2) - single proprietorship - Zambales
 - mango farm - single proprietorship - Ilocos Norte
 - mango farm - single proprietorship - Pangasinan

Status

- Banana - Cardava Integrated Inland Farming (CIIF)
 - assisted by Strategic Development Cooperation - Asia (SDC Asia) for GAP-certification
 - PhilGAP certification effective March 7, 2011 to March 6, 2012



Status

- Mango – Mr. Athene Abad
 - a mango farmer in Iba, Zambales who is being assisted by DA for PhilGAP certification
 - 2 hectares, 100 trees

Drivers

- Export market requirements
- Government initiatives/support
- Non-government initiatives/support
- Individual/corporate culture

Constraints

- Knowledge constraints
- Cost constraints
- Process constraints
- Reward/incentive constraints



Costs (Mr. Abad, mango)

COSTS	Without GAP	With GAP
	in Php	in Php
clearing	P1,000-2,000 (rotovator)	P20,000 (6 laborers cutting grass)
bagging	none	P40,000 (labor, materials)
fertilizers	P4,000/ tree every 2 years (62 trees)	P6,000/tree yearly
other chemicals	none	P80,000
extension of packing house	P40,000 (old bodega)	additional P15, 000 for extension
personal protective gear	none	P1,000 (safety gloves, shirts, goggles)
TOTAL COSTS	54,400	81,200

Costs (Sumifru, banana)

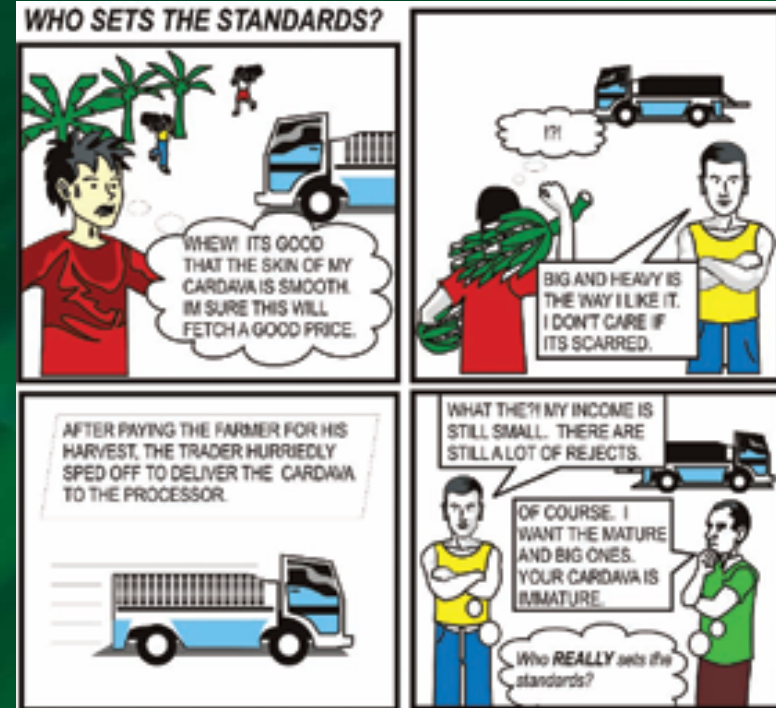
Cost Items	Cost in PhP
Parcela House (24 parcela houses for 29 parcela)	6,576,000
Centralized BI/BS station, one per plantation	540,000
Shower room (1 per plantation)	520,000
Materials Recovery Facility (MRF) (1 per plantation)	600,000
Waste Water Treatment Facility (WWTF)	970,000
9 Packing Plants (PPs), 1 mixing area	
Fuel Containment	20,000
Certification fee	500,000
TOTAL COST	9, 726,000

Policy strategies

- Push and pull strategy
 - Relevant players for the GAP Program can be categorized into 3 dimensions:
 - demand dimension (consumers, retailers, processors, importers, and governments);
 - supply dimension (farmers, workers, producer cooperatives or associations, and exporters); and
 - entities (local advisors or consultants, certifiers, and NGOs) and support services (extension, capacity building, and research) that facilitate the link between supply and demand.

Policy strategies

- Value creation
 - Focus on the tangibles
 - Multi-media approach



Policy strategies

- Value creation
 - Branding or labeling



Recognising the Stamp for Safer Greens

The next time you eat your greens, don't just consider the health benefits. Stop and think about the hygiene and quality of the vegetables that you are consuming. As a smart consumer, you should be aware that fresh greens are subjected to contamination risks during the production process.

As part of its continuous efforts to enhance overall food safety standards, NTUC FairPrice encourages its local vegetable suppliers to adopt the Good Agricultural Practice (GAP) stamp.



Policy strategies

- Capturing value
 - Intensification of PhilGAP certification campaign for corporate banana farms
 - Identification of farmer-innovators for faster GAP adoption
 - Establishment of collective farms or public-private partnerships

Policy strategies

- Capturing value
 - Incremental GAP adoption through “good enough” practices

