

POTENTIAL AND OPPORTUNITIES OF SABA BANANA: FROM TRADITIONAL USES TO INNOVATIVE PRODUCTS

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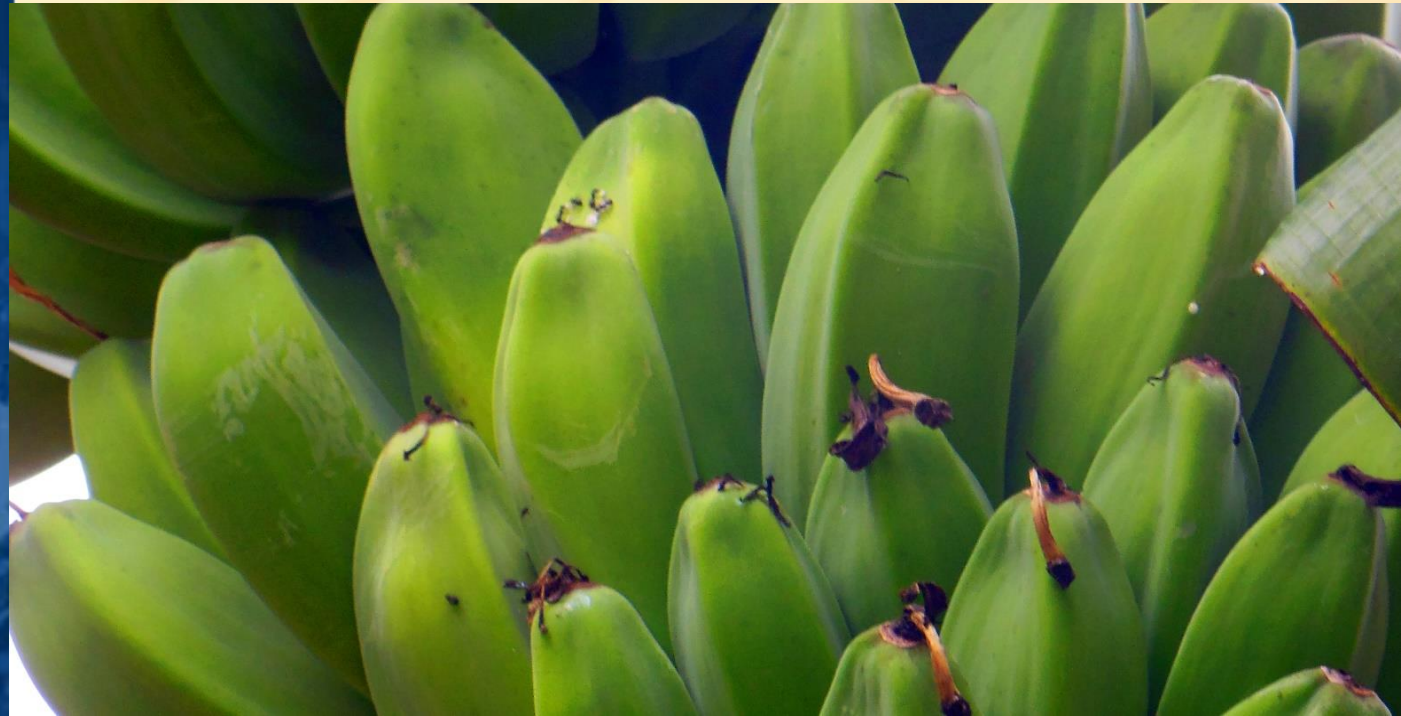
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PRESENTATION OUTLINE

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- II. Production data – World, Malaysia, Sabah**
- III. Common cultivars**
- IV. Saba banana**
 - i. Traditional uses**
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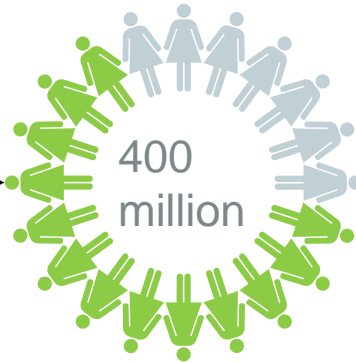
Introduction



- Banana originated from South East Asia.
- Banana is the most important tropical fruit in the world.
- In 2013, 109 million tonnes of banana were produced, valued at about USD 30 billion.
- Banana is a good source of potassium, magnesium, and vitamins C and B6 (pyridoxine).
- Research shows that eating bananas may lower the risk of heart attacks and strokes, as well as decrease the risk of getting some cancers.
- The highest average per capita consumption of bananas in the world is in Uganda, where residents eat an average of 500 pounds (225 kg) of bananas per person every year.

Banana Outlook

Globally



400 million people depend on banana for food security and income generation

Malaysia



MALAYSIA

Bananas grown on 27,500 ha

75% potential deficit yield

Malaysia Average

10 TONNES/HA

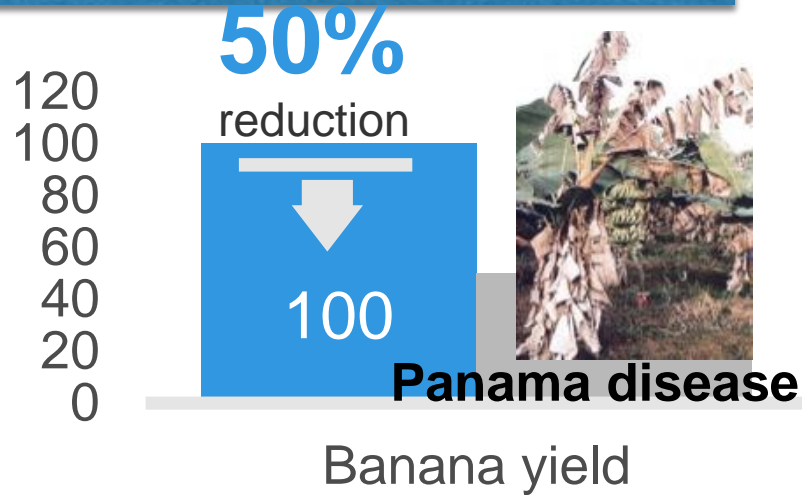
Yield potential

40 TONNES/HA



Problem

Panama disease reduces yield



Waste generation from banana

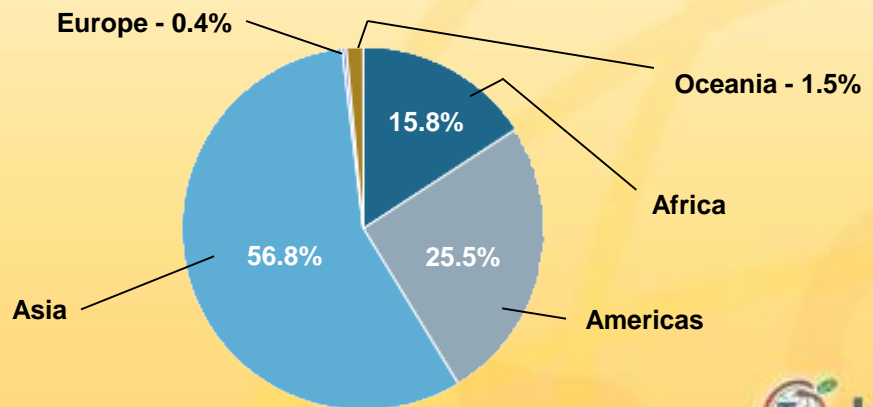
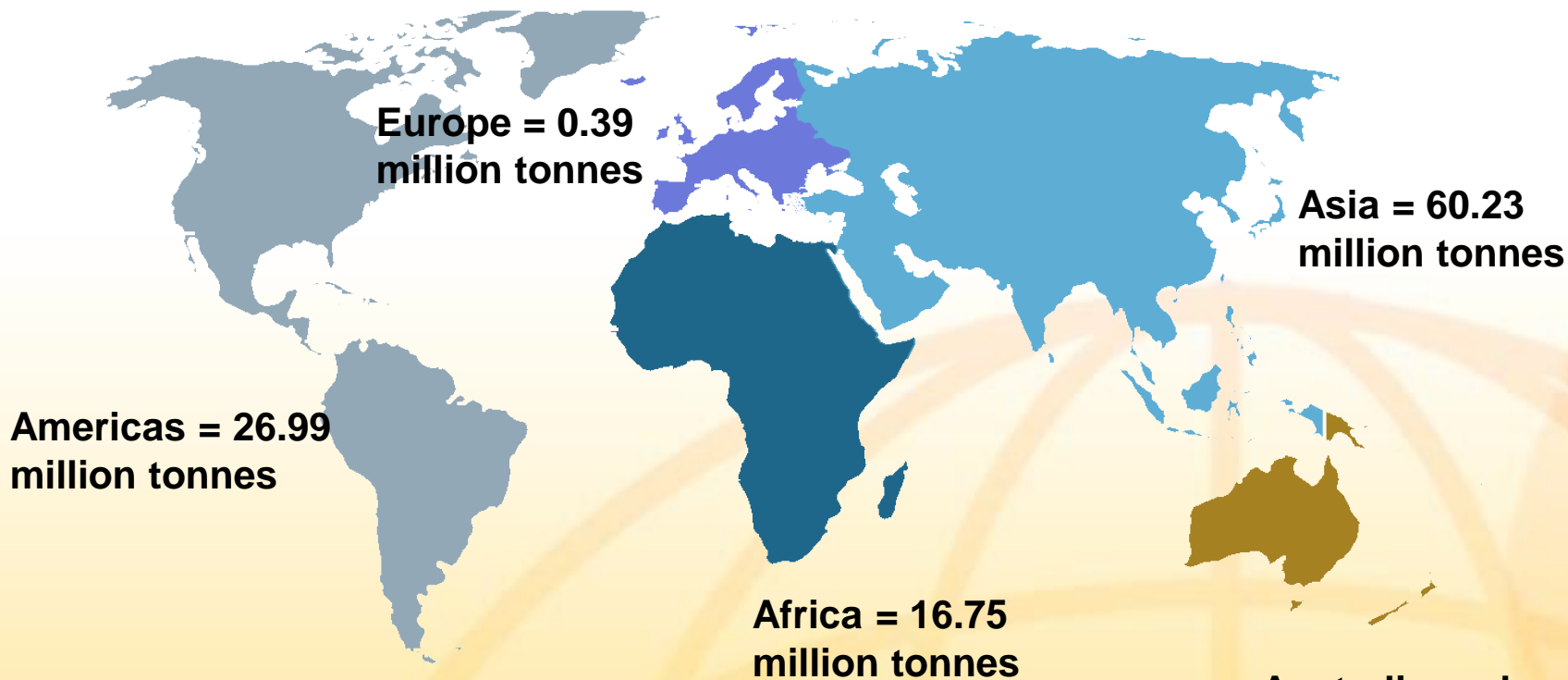


200 tonnes/hectare of banana waste generated per year



11% of Malaysia's electricity supply by 2020

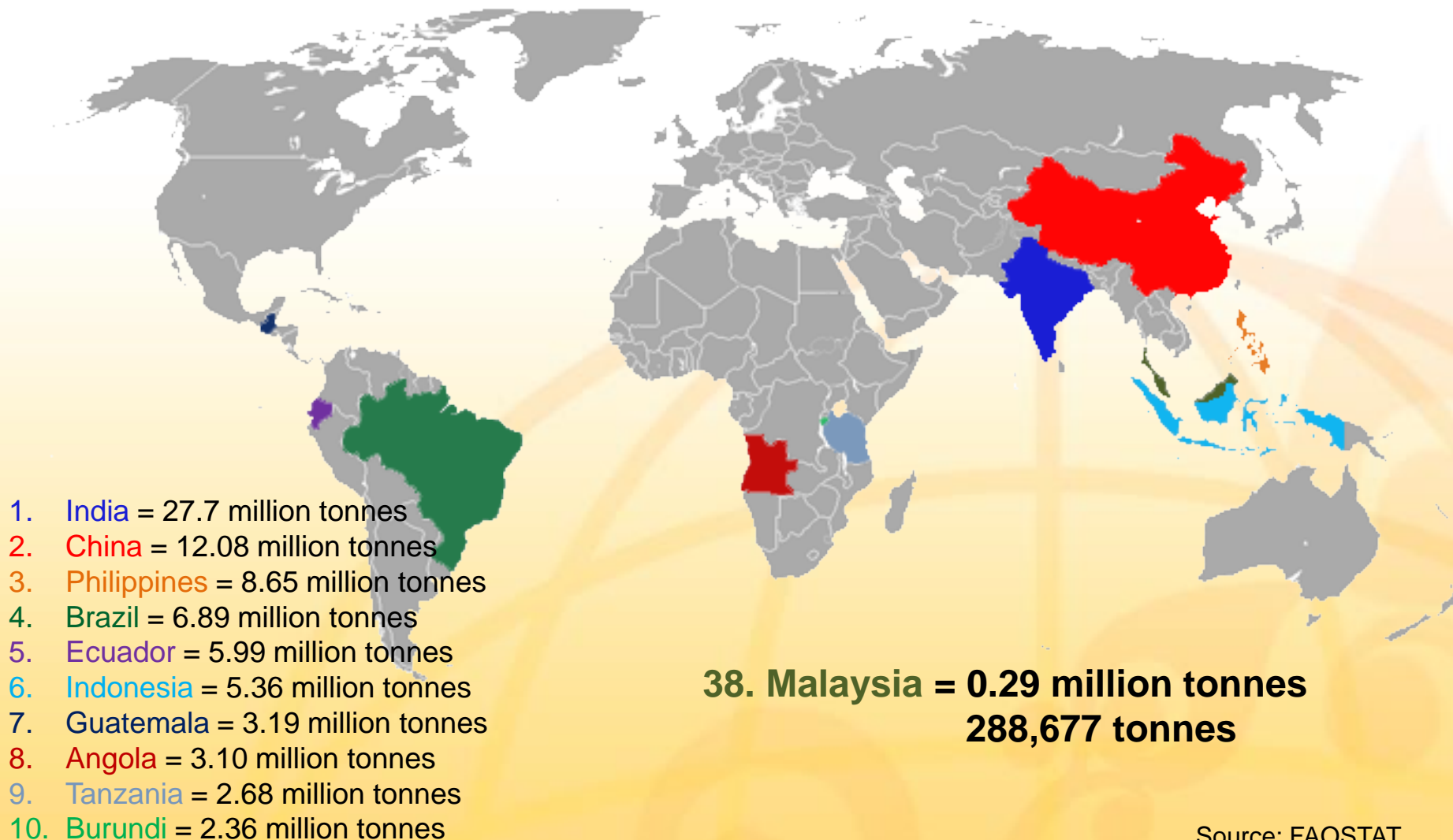
World Production of Bananas (2013)



Source: FAOSTAT



Top producing countries (2013)

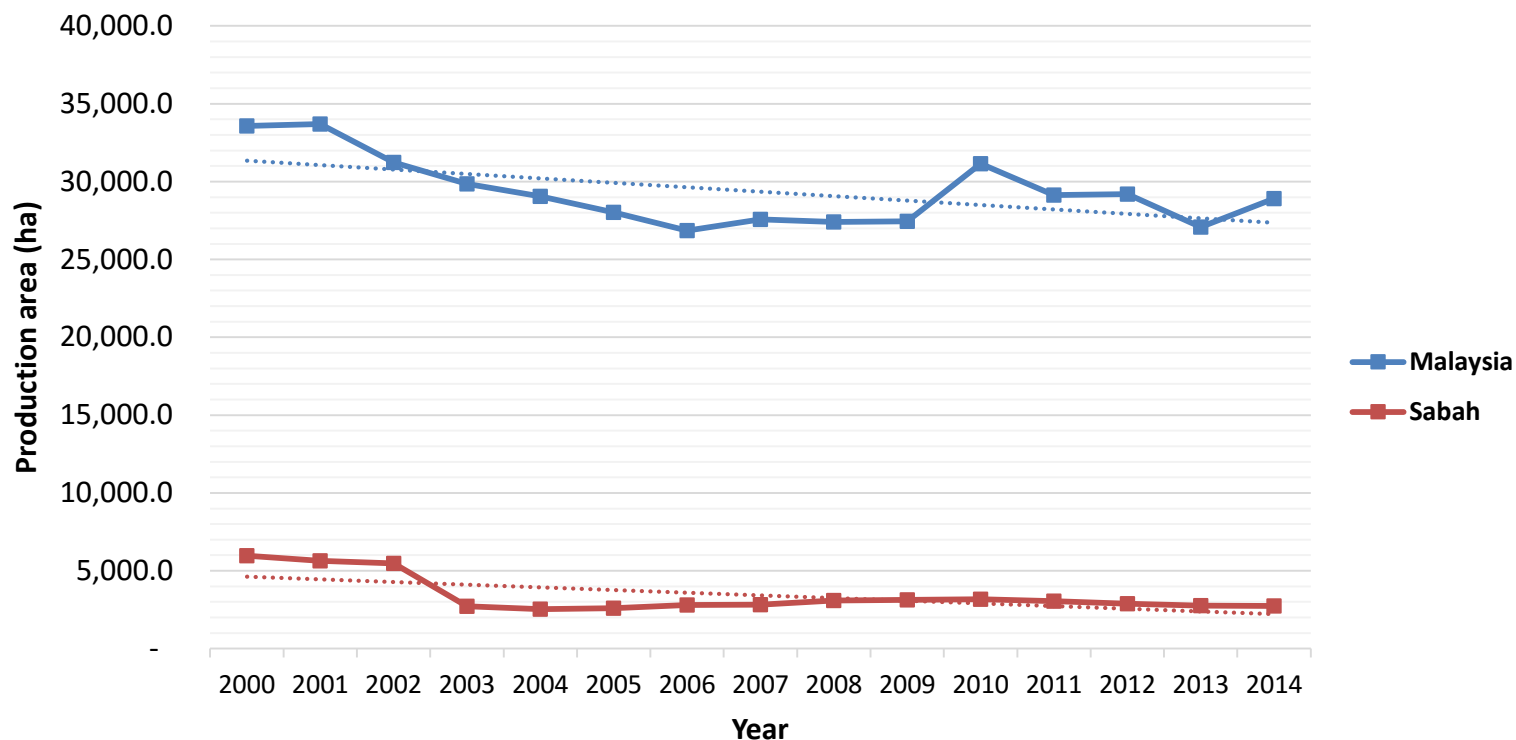


Source: FAOSTAT



Banana production in Malaysia

Production area of bananas in Malaysia and Sabah

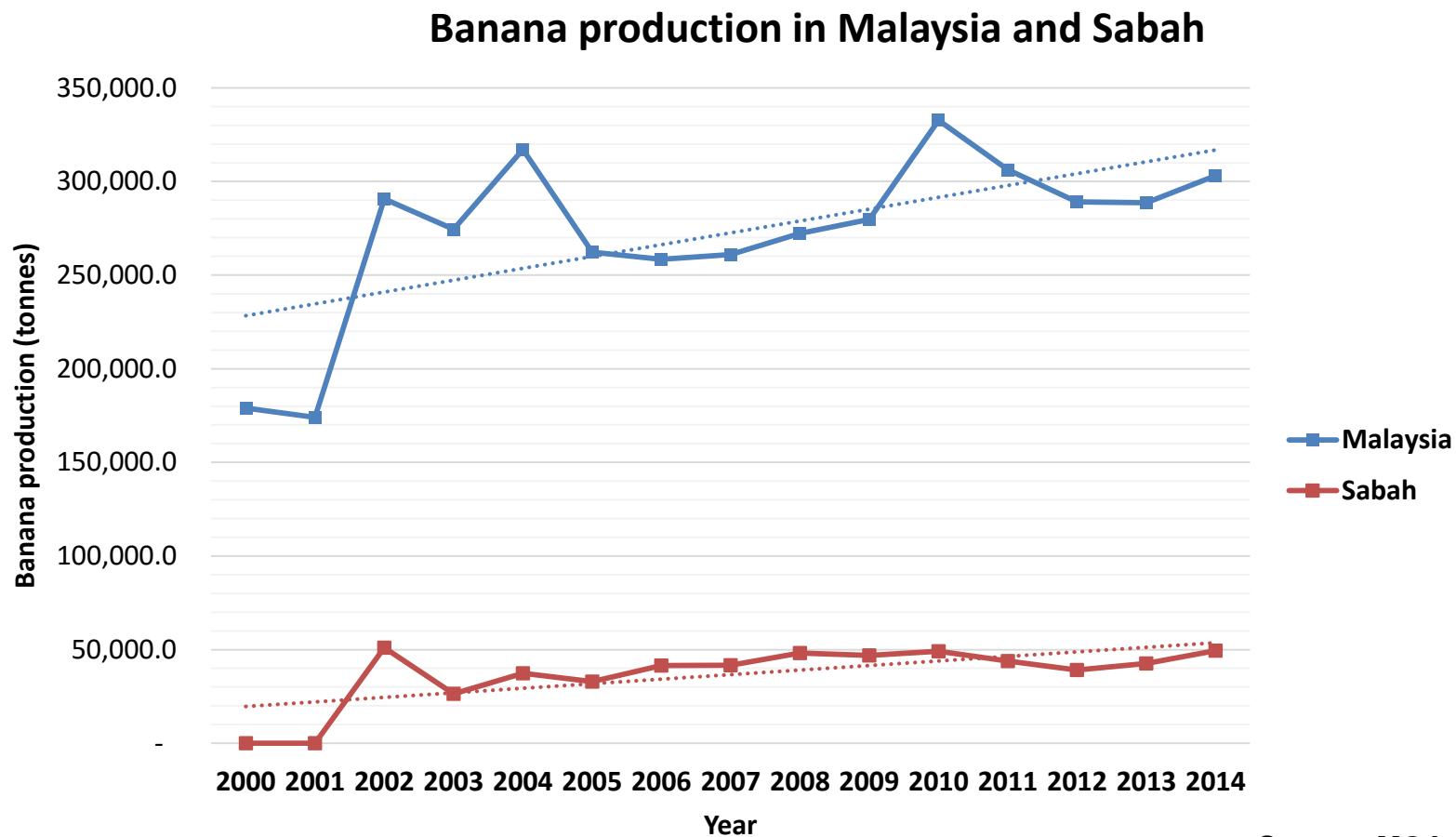


Source: MOA

The production area of bananas in Sabah and Malaysia is at a downward trend for the last 14 years



Banana production in Malaysia



Source: MOA

Even though the area is decreasing, production is still increasing. Allotting more land for planting bananas will improve production.



Banana production in Malaysia per state (2015)

STATE	Luas Bertanam (Ha)	Pengeluaran (Mt)	Anggaran Kuantiti Eksport (Mt)
JOHOR	6,374.4	112,511.3	11,251.1
KEDAH	1,586.2	12,004.8	1,200.5
KELANTAN	2,074.1	26,578.3	2,657.8
MELAKA	985.9	8,415.8	841.6
NEGERI SEMBILAN	576.1	9,843.9	984.4
PAHANG	4,549.1	35,441.8	3,544.2
PERAK	3,435.1	40,868.5	4,086.9
PERLIS	8.4	112.2	11.2
PULAU PINANG	501.9	5,523.2	552.3
SELANGOR	325.7	2,025.9	202.6
TERENGGANU	398.6	2,929.7	293.0
SEMENANJUNG MALAYSIA	20,815.5	256,255.4	25,625.5
SABAH	2,793.6	50,614.4	5,061.4
SARAWAK	3,556.4	35,678.4	3,567.8
W.P. LABUAN	130.3	513.0	51.3
JUMLAH KESELURUHAN - MALAYSIA	27,295.9	343,061.2	34,306.1



Banana production in Sabah per district (2015)

DISTRICTS	Luas Bertanam (Ha)	Pengeluaran (Mt)	Anggaran Kuantiti Eksport (Mt)
Tawau	171.3	3,444.1	344.4
Semporna	116.5	1,147.9	114.8
Lahad Datu	100.8	1,603.3	160.3
Kunak	2.0	11.0	1.1
Sandakan	30.2	868.4	86.8
Kinabatangan	11.1	41.4	4.1
Tongod	7.6	78.8	7.9
Beluran	58.2	1,235.8	123.6
Telupid	4.0	36.1	3.6
Kudat	86.7	420.9	42.1
Matunggong	88.7	1,468.2	146.8
Pitas	116.2	2,227.2	222.7
Kota Marudu	92.7	1,743.5	174.4
Kota Belud	655.1	6,079.0	607.9
Ranau	111.9	1,261.0	126.1
Tuaran	201.6	5,190.5	519.1
Kota Kinabalu	7.3	134.7	13.5
Penampang	13.1	80.2	8.0
Putatan	2.0	48.1	4.8
Papar	80.6	1,154.3	115.4
Beaufort	40.3	593.6	59.4
Sipitang	264.2	6,012.2	601.2
Kuala Penyu	32.5	795.9	79.6
Tenom	349.6	12,011.6	1,201.2
Keningau	39.3	791.6	79.2
Sook	79.4	1,684.6	168.5
Tambunan	27.6	347.9	34.8
Nabawan	3.2	102.7	10.3
JUMLAH	2,793.6	50,614.4	5,061.4



Common banana cultivars

Pisang Cavendish

- Most popular dessert banana for export
- Accounts for about 50% of total banana production in the world



Pisang Berangan

- The most popular dessert banana in South East Asia



Common banana cultivars

East African Highland Bananas

- Most important crop in East Africa, especially Uganda
- Grown 1,400-2000 m above sea level
- Both eaten cooked and raw



Silk Banana

- Popular in South East Asia
- Flesh is soft and smooth as silk
- Very thin skin
- Eaten fresh



Common banana cultivars

Plantains (example: pisang nangka)

- Staple food in Africa, Caribbean, and South and Central America
- Cooked before eaten



Saba banana

- Popular in South East Asia
- Cooked and processed into chips. Can be eaten raw



Saba banana

- Saba originated from the Philippines???
- It is one of the most important banana varieties in Philippine cuisine. It is also eaten in Malaysia (*pisang abu/nipah*), Indonesia (*pisang kepong*), and Thailand (*kluai hin*).
- It is mostly cooked but can be eaten raw.
- Saba can be processed into different products and is gaining popularity in domestic and international markets.
- It is one of the important sources of food in the rural areas where it is eaten as a staple food.

Saba banana – traditional uses

Pisang Goreng (Malaysia)

Crispy fried banana



Turon (Philippines)

Fried banana wrapped in spring rolls



Saba banana – traditional uses

Kluai Buat Chi (Thailand)
Saba cooked in coconut milk



Lepat pisang



Saba banana – traditional uses

Arroz ala cubana

Traditional Philippine dish with ground beef, fried saba, and rice



Banana chips



Saba banana – innovative products

Banana flour



Banana ketchup



Saba banana – innovative products

Banana wine



Banana vinegar



Saba banana – innovative products

Banana paper (Australia)



Banana fabric (Philippines)



Saba banana – uses (leaves and pseudostems)

Leaves: Wrapper for food



All by-products: Silage for livestock



Banana businesses around the world



Banana businesses around the world



Banana businesses around the world



World market potential of saba banana chips



- The global demand for healthy snacks is increasing. Products from saba, such as banana chips, can meet this demand.
- Possible markets for snacks:
 - USA (380 billion USD)
 - Europe (13.8 billion USD)
 - China (2.5 billion USD)
 - Others: Peninsular Malaysia, India, Middle East

Data courtesy of Bureau of Plant Industry, Philippines



Banana plantation in Maguindanao, Philippines



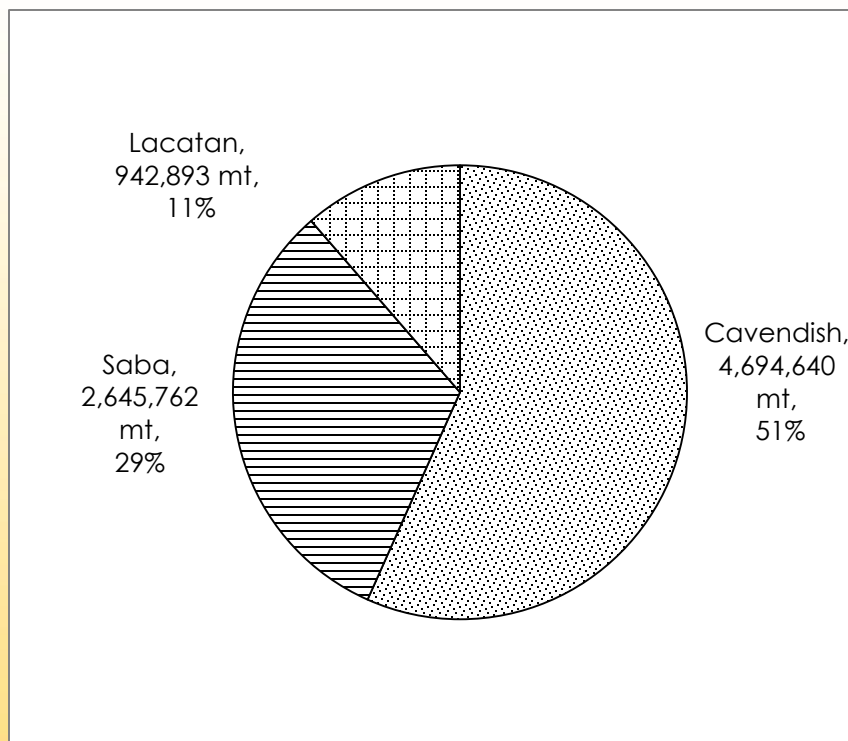


Lessons from TFNet Philippines

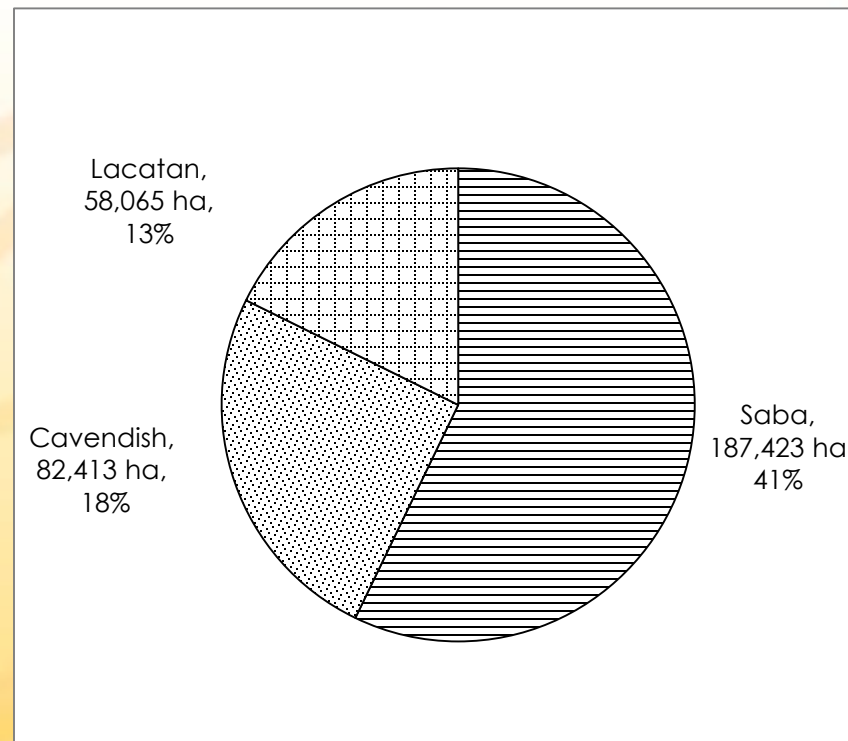
SITUATIONAL ANALYSIS

Banana: (a) Production and (b) Area by type, 2012

(a)



(b)



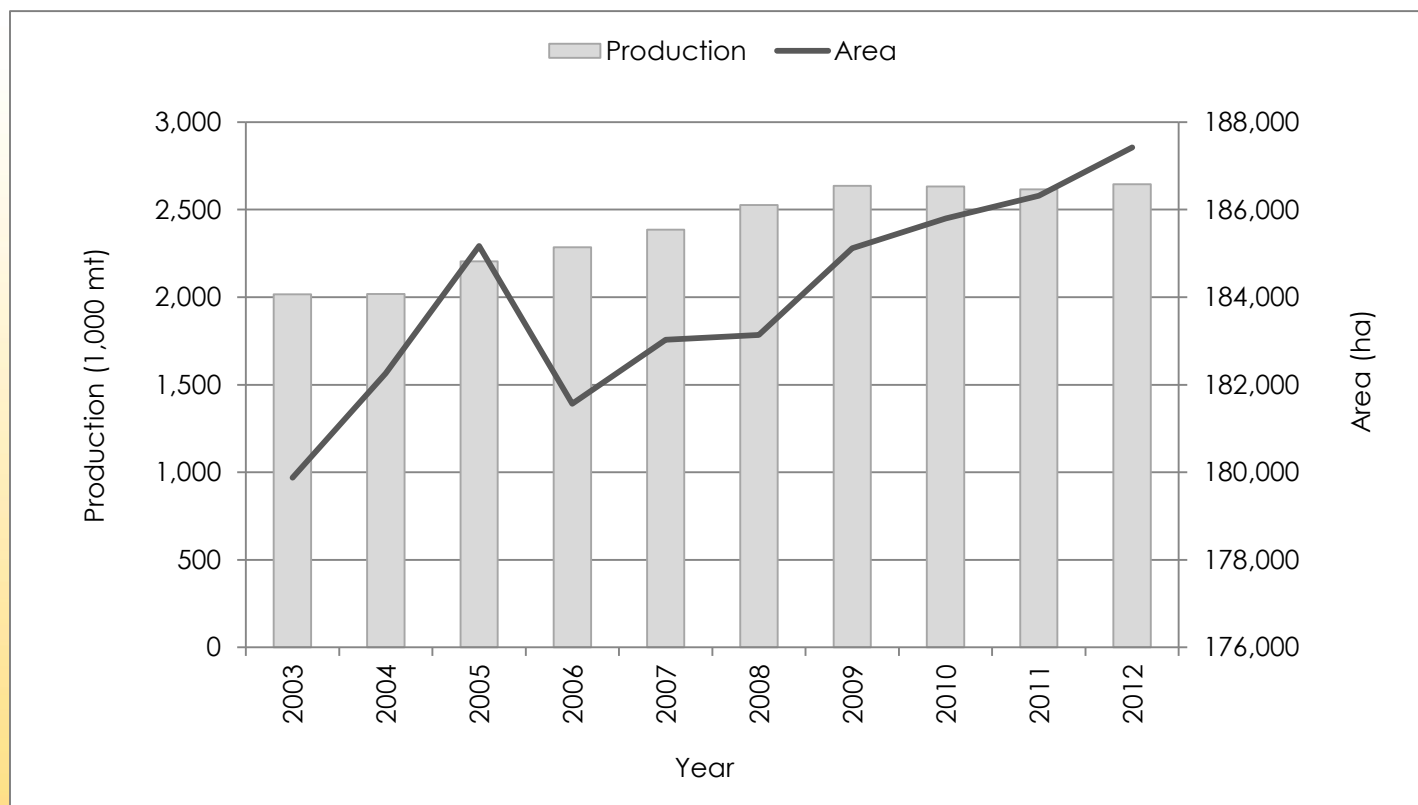
Courtesy of Bureau of Plant Industry, Philippines



Lessons from TFNet Philippines

SITUATIONAL ANALYSIS

'Saba' Banana: Production and Area Planted, 2003-2012



Courtesy of Bureau of Plant Industry, Philippines



Recommendations

- Sabah is the frontier of food production in Malaysia. Saba banana has the potential to be developed for food security and income generation for farmers.
- Research should be focused on genetic improvement for better yield and resistance to diseases, production technologies, postharvest management, and value added products.
- Value addition is important to secure market access. Processed bananas (like chips and frozen banana) have higher price and a longer shelf life.
- The government of Sabah/Malaysia should follow the Philippine experience by creating a road map/strategic plan for the saba banana industry in Malaysia. TFNet can offer consultation services to develop the road map, including workshops, hands-on-training, and technology transfer.



TERIMA KASIH!

