

Black Pepper

ASTA Conference 2017

NAMAGRO

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Structure

Demand

Supply

Price

Demand

- Region wise
 - Imports
 - Consumption

- Category
 - Food
 - Industrial
 - Speculative

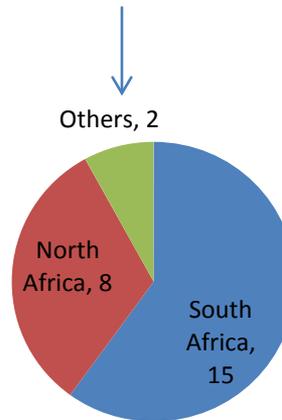
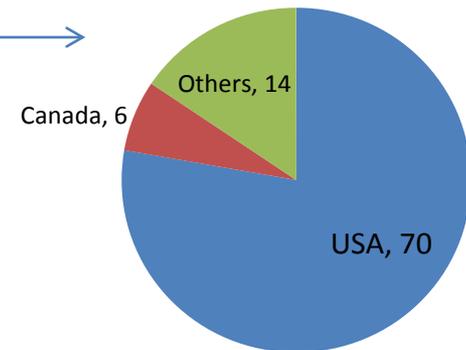
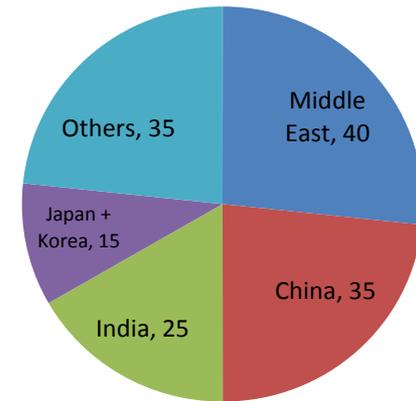
Demand

Region wise imports 2016 Qty KMT

Region	Whole Pepper	Ground Pepper	Total
World Imports	300	80	380
-Asia	130	20	150
-Europe	80	35	115
-Americas	70	20	90
-Africa	20	5	25

Source  ITC

- Other than EU all other regions grow pepper.
- Ground Pepper imports have been rising in the past decade.



Demand

Region wise estimated consumption

Region	Population Bn	Consumption KMT	gm/person
Asia	4.43	200	45
Europe	0.74	115	155
Americas	0.98	80	81
Africa	1.21	50	41
Total	7.37	445	60

→ Western EU approx over **200 gm/person**

→ US consumption at 70K and a population of 300 Mn is over **200gm /person**

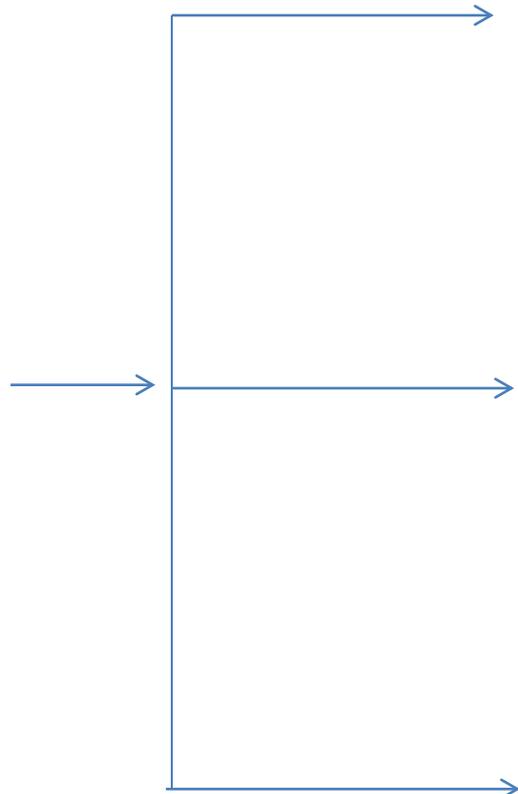
*We observe that the consumption per person in the developed world is close to 3 times that of the developing world.

High Income populations take a high protein diet and pepper consumption can be directly linked to the meat consumption. The consumption in the developed is directly linked to meat consumption.

Demand

Category

Black Pepper



Food

- **Meat Related**
- Vegetarian (Salads, home cooking)
- Snacks

Industrial

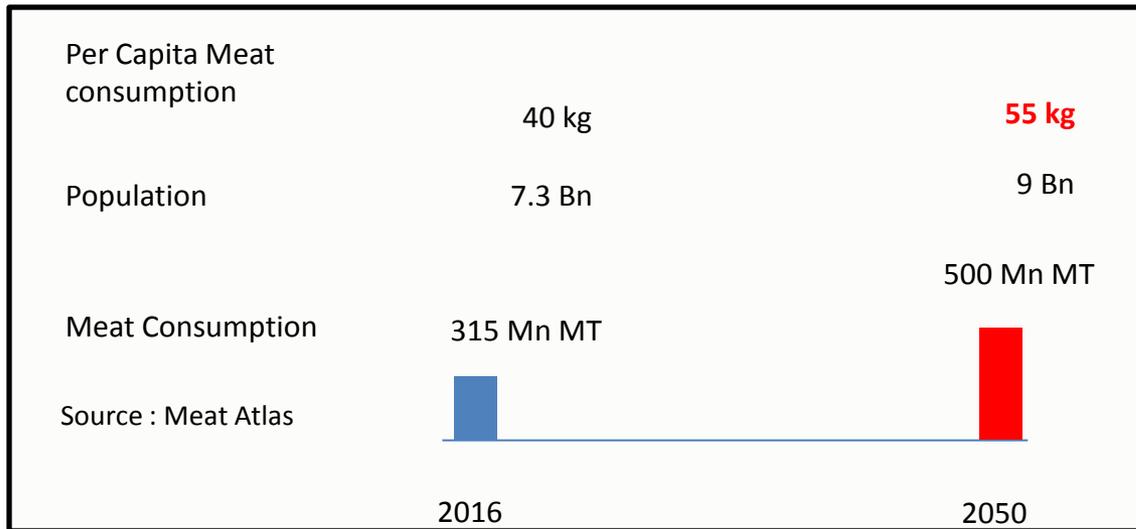
- Nutraceuticals
- Medicinal
- Cosmetics
- *Wastage

Speculative

- Trade houses
- Origin

Demand

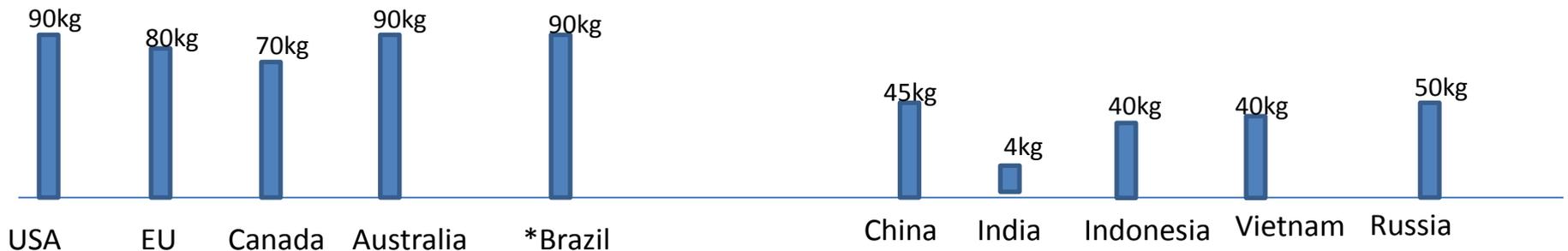
Meat Consumption



1 kg Processed meat needs 1 gm of pepper for preservation alone.

Per capita meat consumption in the developing world is close to 50% of the Developed world.

Per Capita Meat consumption Developed vs Developing



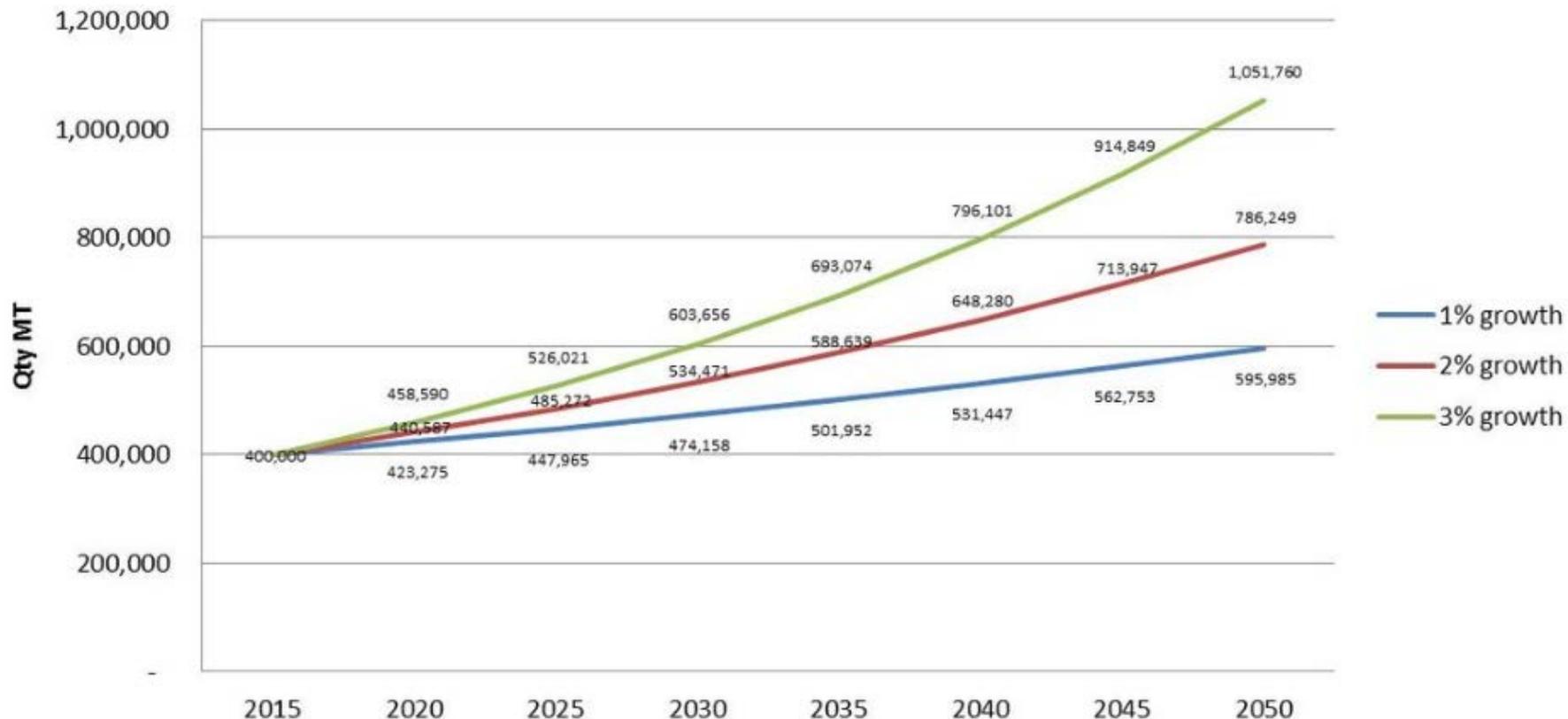
Demand

World needs between 8000- 13000 MT more pepper each year

* Meat consumption to grow by a CAGR of 1.35% p.a

* Population expected to grow by a CAGR of 0.8% p.a

Pepper Demand projections



Demand Speculative

2008-2015
Commodity bubble
in Dubai and
Singapore

- 2008 GCC banks well capitalized
- Real Estate not growing
- Food Business seen as recession proof with fast turnaround time.
- Dubai considered as the safe haven to lend and borrow.
- Notorious traders build balance sheets and leverage beyond their capacity.
- Rice and Sugar prices collapse.
- Companies go bankrupt.
- Zero speculative demand In 2016.

Origin Speculators
-Big Farmers
-Trading companies
-China

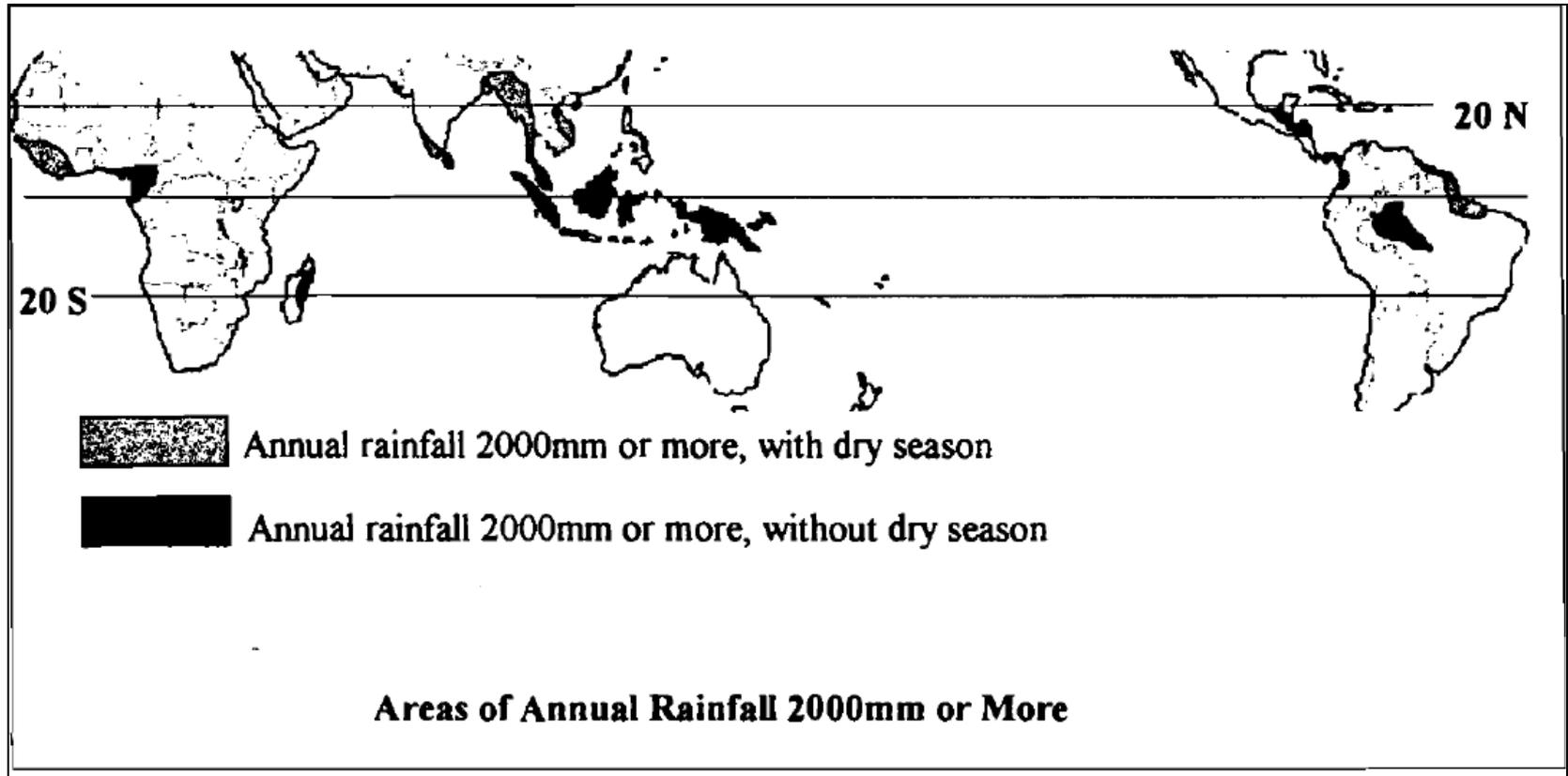
- Pepper farmers in VN rich and hold.
- Trading companies come with innovative Structured finance deals like PTBF.
- Chinese companies use agents to buy in Vietnam. They create short squeeze and sell back in Vietnam.

Destination Stock
and Sale Traders

- Stockists
- Trade houses

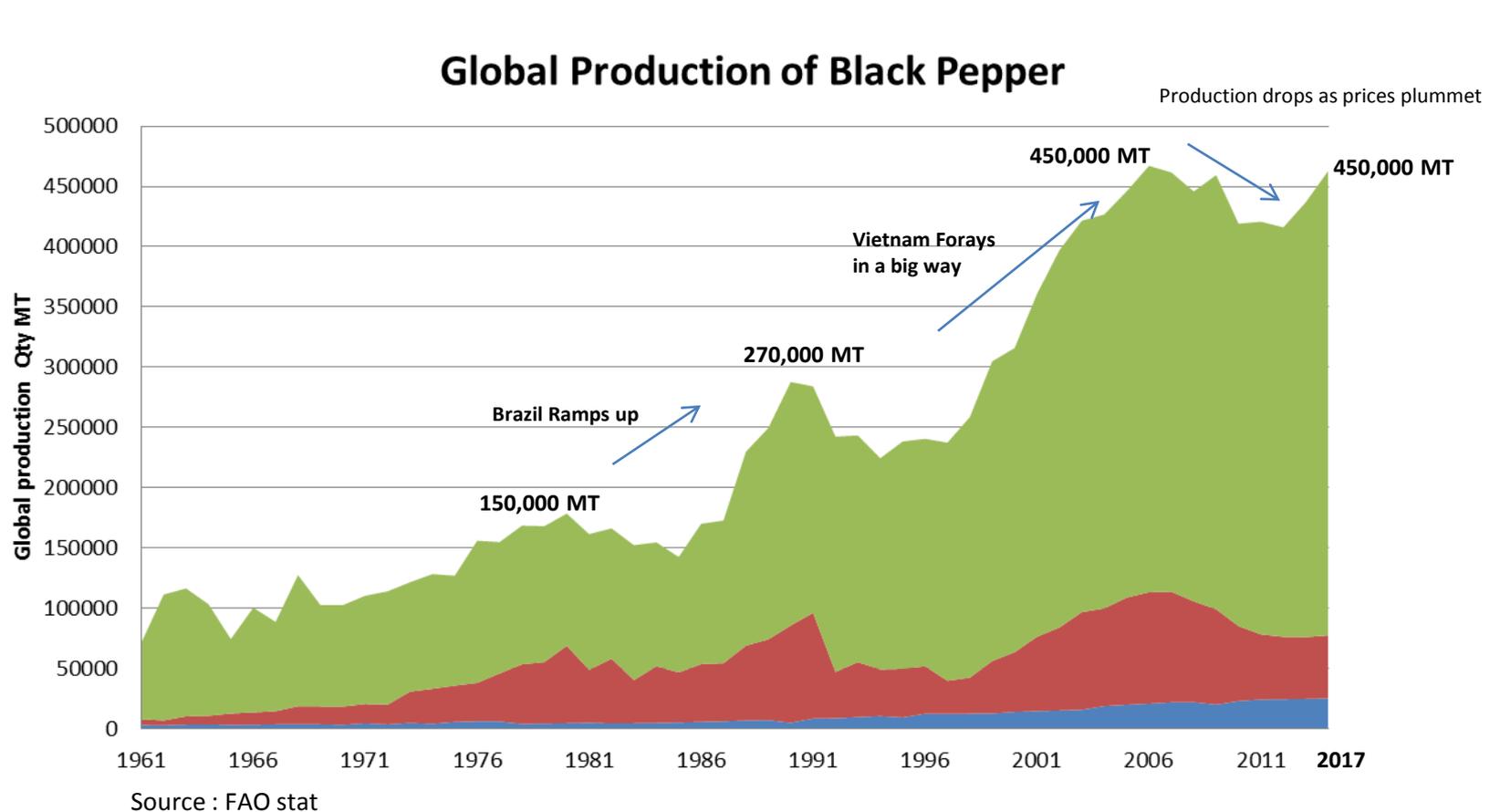
Supply Agronomy

20 N to 20 S latitude , 2000 mm of rainfall, 1000-1500 m height.



Supply A historical perspective

Pepper production doubled in past 20 years and quadrupled in past 50 years .



Supply

Current Supply situation

Global Production in 2017 is estimated at 450 K MT. A rise of 12.5% YOY basis.

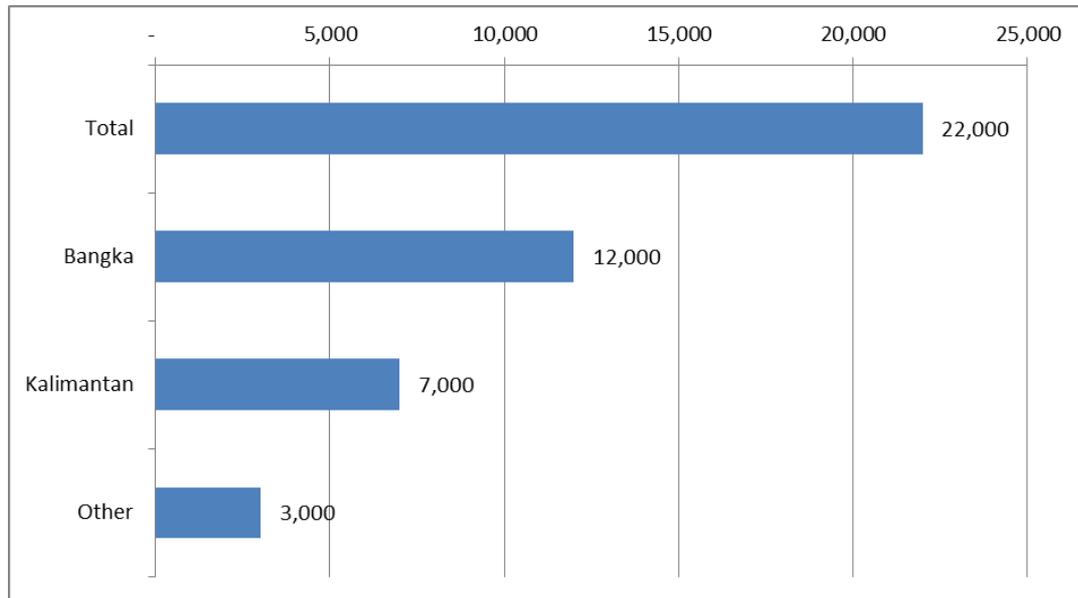
Country	2016	2017	Increase%
Vietnam	175	195	11%
Brazil	55	60	9%
India	45	50	25%
Indonesia	45	49	17%
Malaysia	17	20	18%
China	20	24	20%
Sri Lanka	13	16	23%
Cambodia	10	12	20%
Others*	20	25	33%
Total	400	450	12.5%

Source : International Spice Conference 2017

- There is no origin that reports a lower crop.
- Expanding area is the main reason and not growth in yields.
- Unfavorable weather impacting yields and flows.

Supply Current Supply situation- White Pepper

White Pepper production in MT -Indonesia estimate 2017

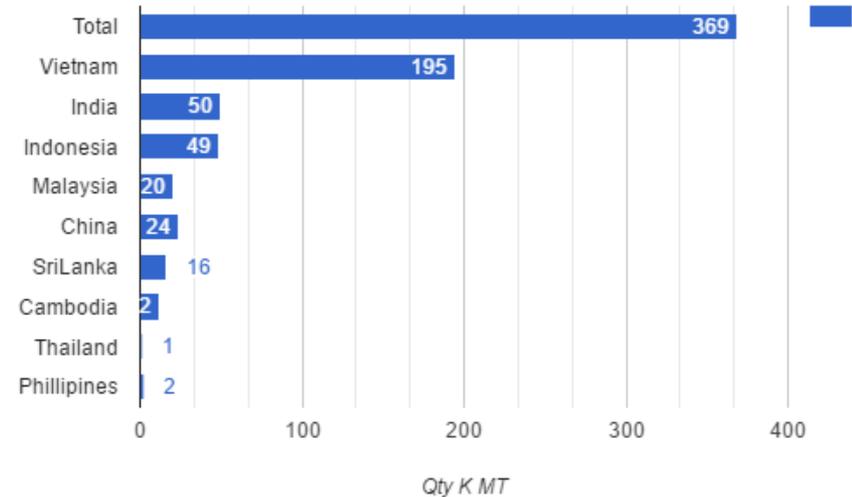


Vietnam, India, others .. Typically process White from Black and therefore supply depends on the price. Theoretically therefore there is no production limitation.

Global demand is close to 44,000 MT and is largely catered by Indonesia and Vietnam . Flavor, Color, smell preferences vary with markets.



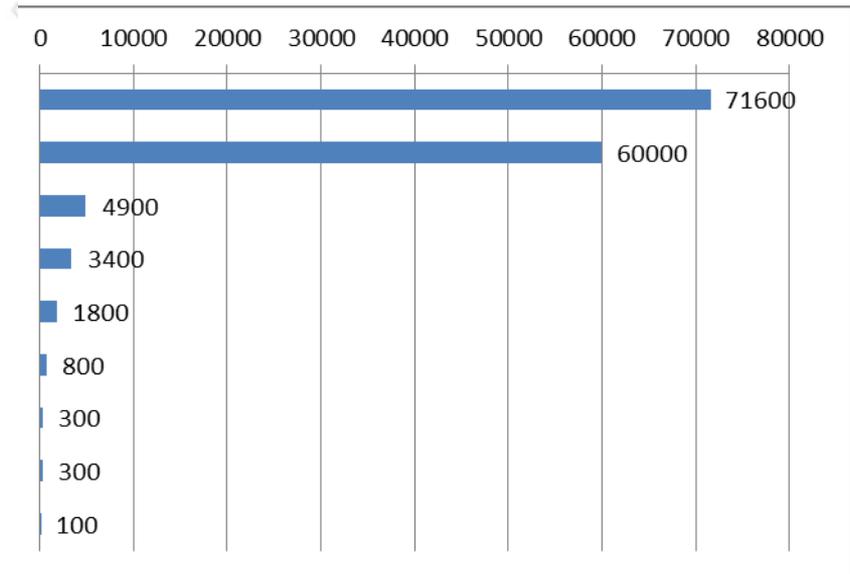
Asia : Pepper production 370K MT



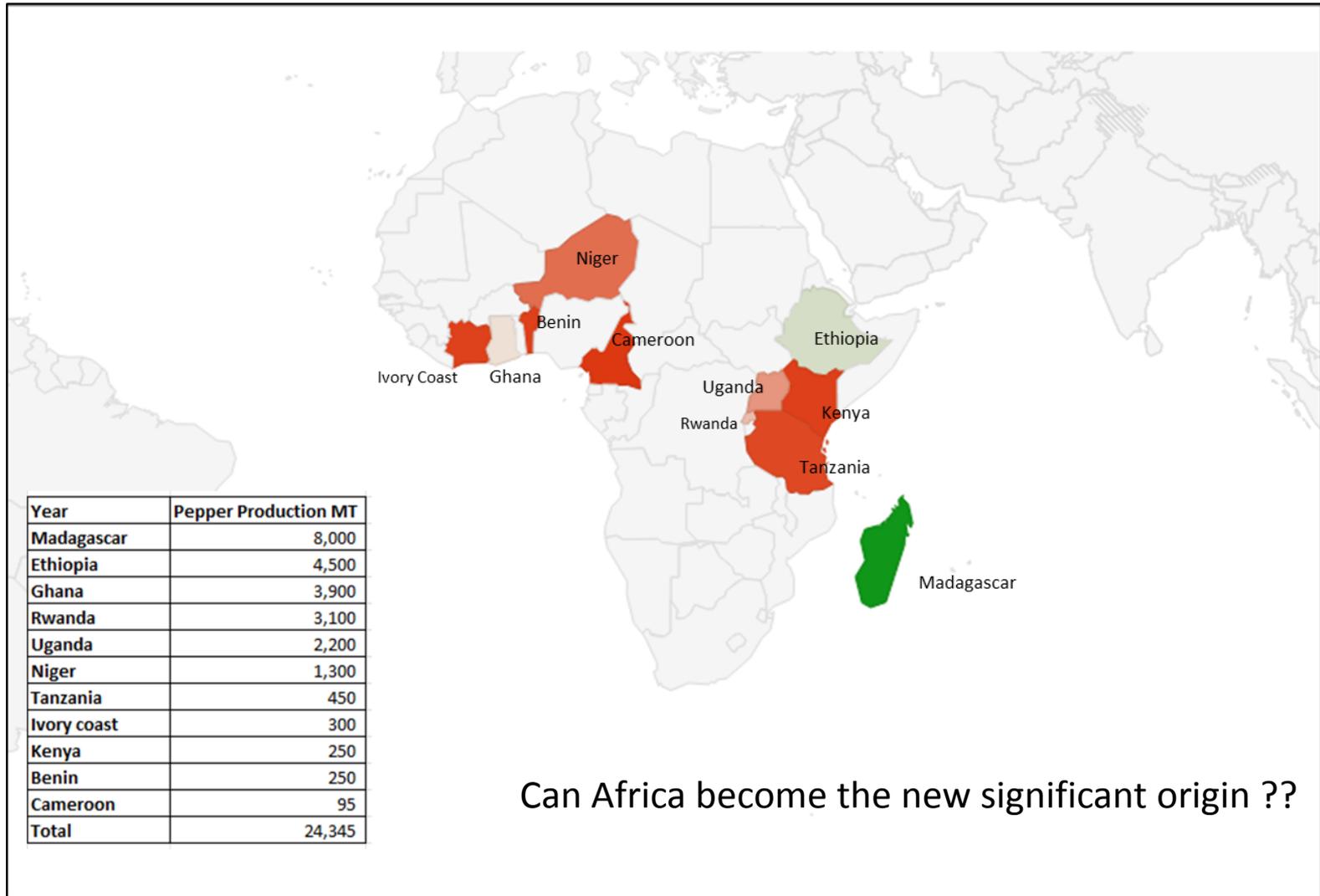
- Yields in VN have been lower but area under plantation has been expanding .
- There is enough land, water and other resources in VN , Cambodia, Kalimantan to expand the crop.
- VN, Indonesia, Malaysia, India .. Have good processing infrastructure.



Pepper Production : 71,600 MT

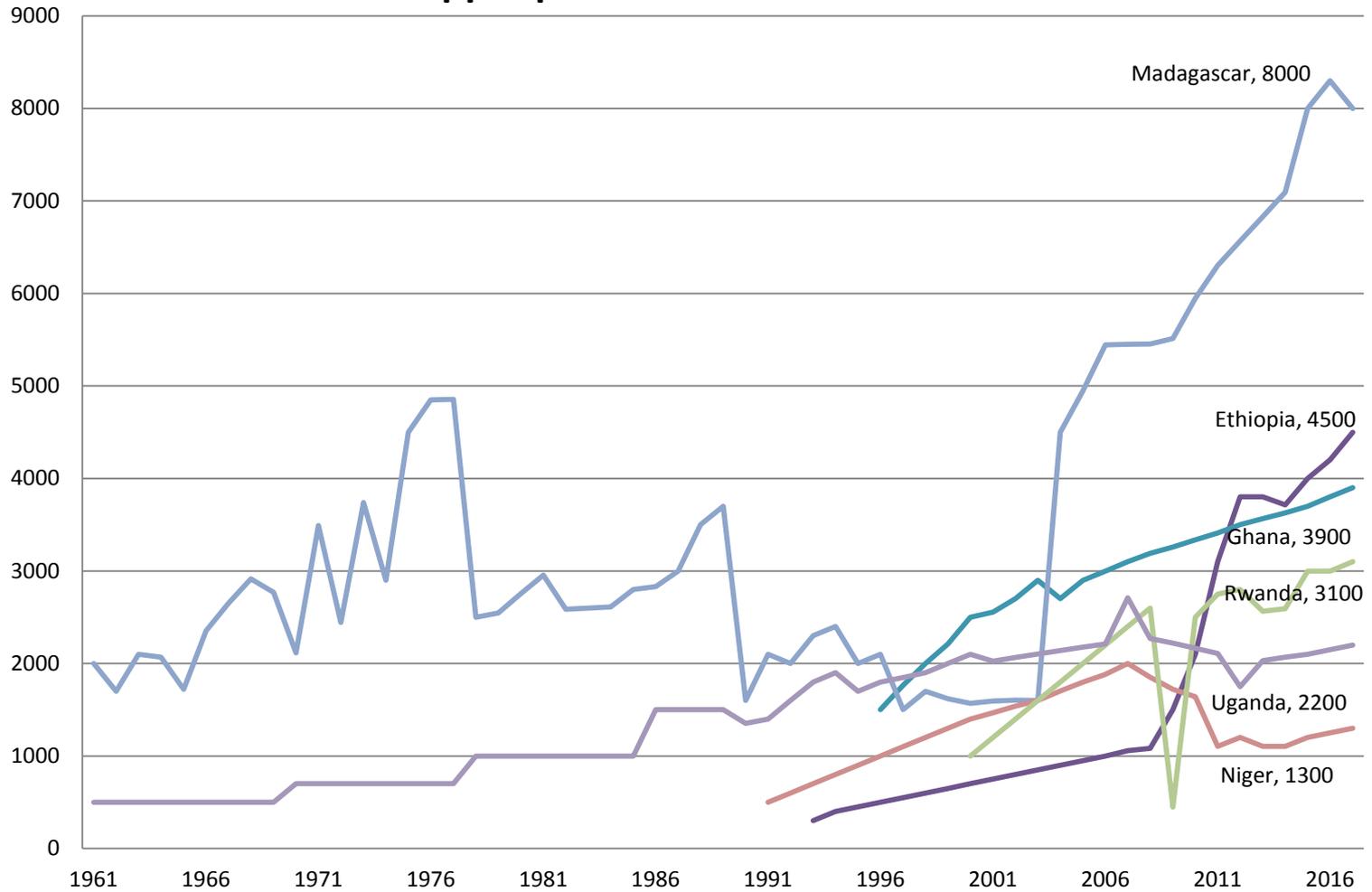


- Central and South America has enough area to expand.
- Farming techniques are advanced when compared to Asia.
- Processing of FG is not as advanced as in Asia.
- Labour costs in Brazil may be deterrent to expansion



Can Africa become the new significant origin ??

Pepper production MT in Africa



Can Africa become the new significant origin ??

Population Africa : 1.2 Bn

Domestic Production : 25KMT

Expected consumption : 50,000 MT

Net imports :

South Africa Imports : 10,000 MT

Central and North Africa Imports : 15,000 MT from Vietnam, Middle east etc.

Whole Pepper Imports into Africa would slow down if Central Africa is able to ramp up production.

Origination for the non growing countries is not expected in the near future.

Supply Carry over Stock situation

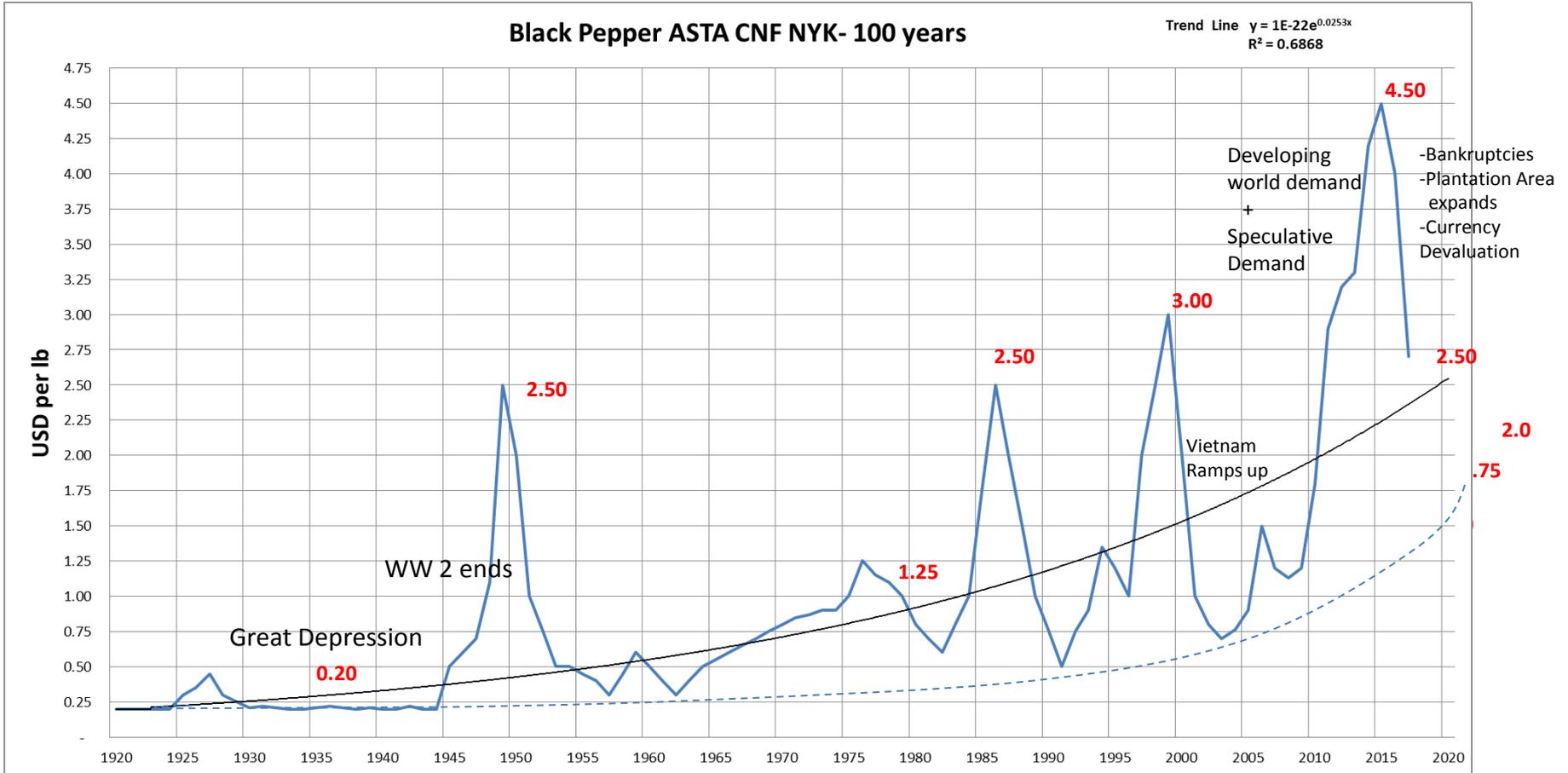
Country	2016					2017
	Stock Brt fwd	Production	Imports	Consumption	Exports	Stock Brought Forward
Vietnam	7,500	175,000	15,000	6,500	180,000	11,000
Indonesia	14,700	45,000	3,000	12,000	47,000	3,700
India	13,500	45,000	14,900	50,000	16,000	7,400
Brazil	16,000	55,000	6,000	9,000	40,000	28,000
China	4,700	20,000	40,000	55,000	2,000	7,700
Sri Lanka	800	13,000	900	5,000	9,680	20
Malaysia	8,700	17,000	2,500	2,000	15,500	10,700
Cambodia	500	10,000	1,000	1,000	10,000	500
Others	1,850	20,000	100	1,850	15,500	4,600
Total	68,250	400,000	83,400	142,350	335,680	73,620

Source : IPC, Namagro

- Over all carry forward stock was marginally higher in 2017.
- Stocks at the destination are very low.

Price

A Historical Perspective



Source : Commodity Research Bureau of USA, Namagro

Price Long term : Fundamentals

Bullish elements

- Increasing population leading to steady growth in consumption
- Potential for growth in Per capita meat consumption in the developing world.
- Industrial use on the rise
- Speculative demand at origin- Farmer's ability to hold.
- Better yields in adjacent crops

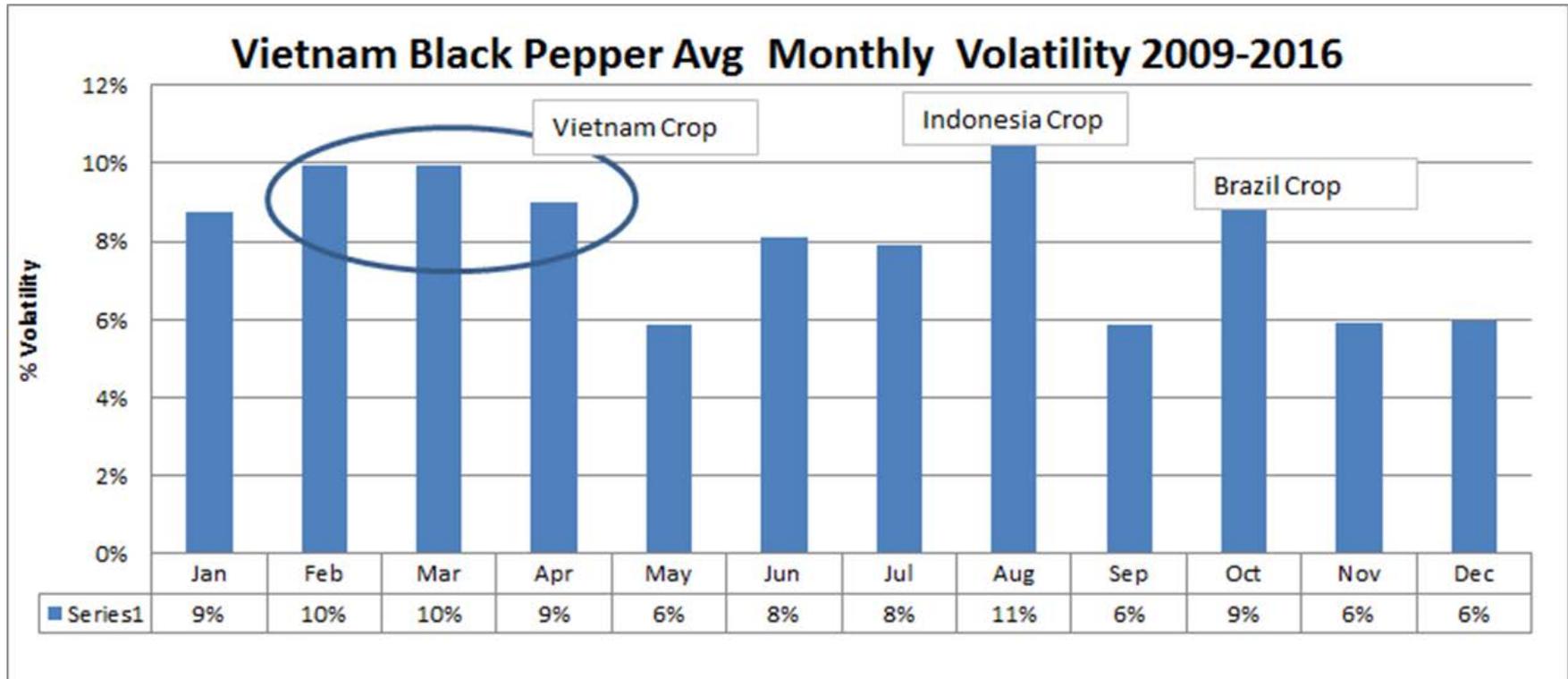
Bearish elements

- Fewer International Market makers
- Increasing area under plantation
- Growing origin stock levels
- Enough land available for scaling up, new origins coming up.

Price Long Term View : So what may happen....

- Based on long-term cyclic mathematically modeling with a R^{\wedge} of 0.68 . We can expect a bottom of 1.5 in the next 2-3years.
- The cost of production of pepper being close to 1.2 USD/lb ; we expect farmers to hold back on new plantations and old vines may get replaced by coffee, cashew or Rubber.
- As farmers reduce input, adopt more sustainable ways of farming, cut back on new plantations... supply will reduce and we might see a steady rise in prices again. With rising prices speculative demand will also kick in pushing prices further.
- Assumption : There are no catastrophic events such as -
 - An epidemic due to disease
 - Drastic Climate change leading to unfavorable weather

Price Near Term : Lets look at volatility

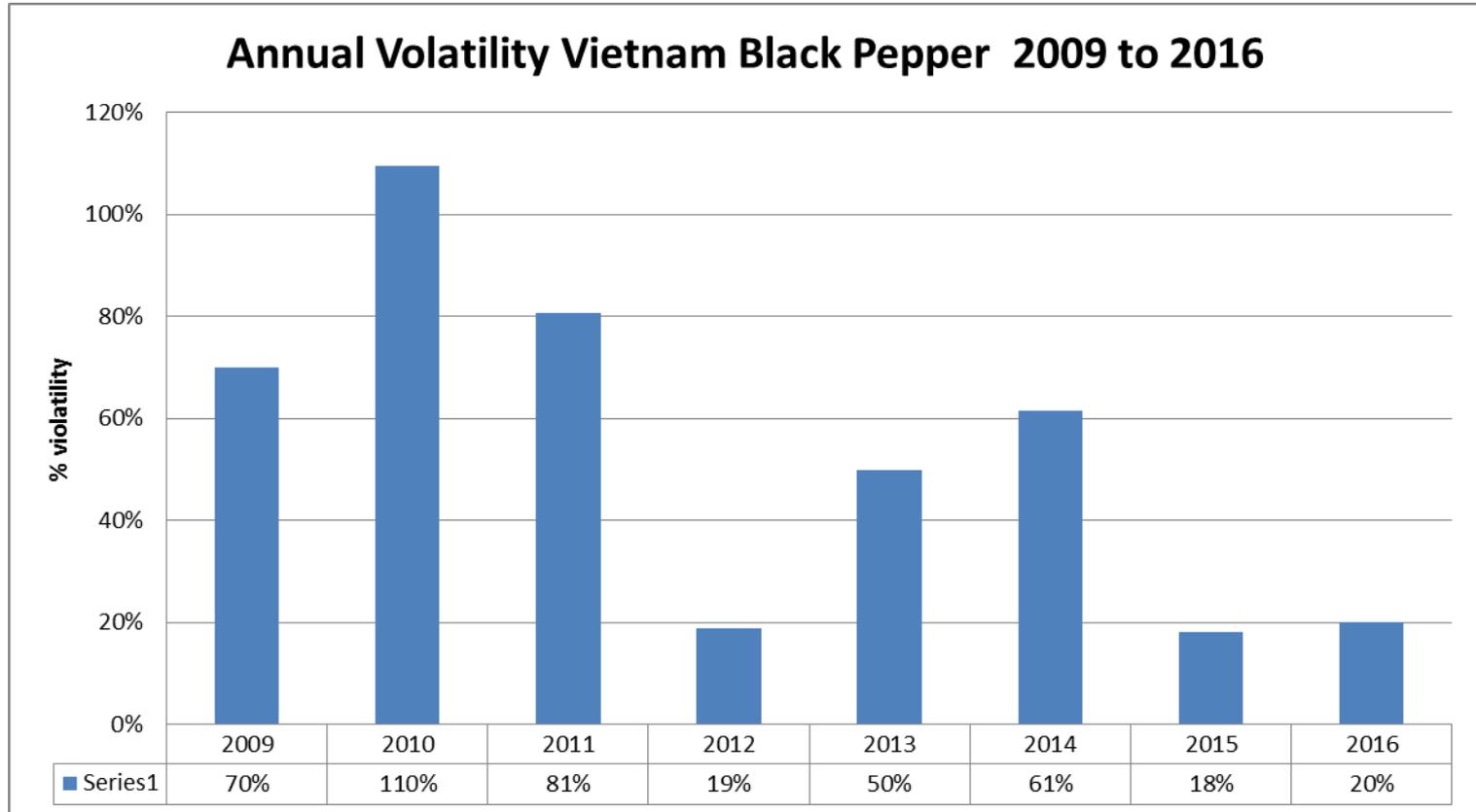


Note : Above volatility is calculated basis USD/MT and thus encompasses volatility due to currency movements .

Source : Namagro Database

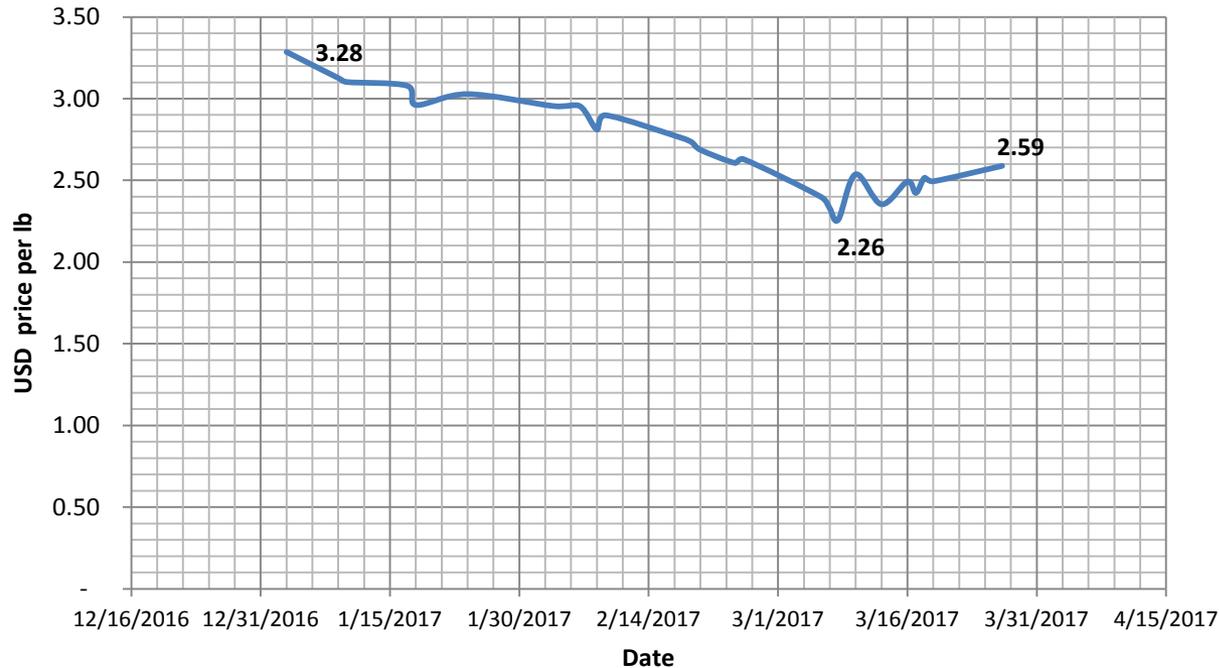
Price

Near Term : Lets look at volatility



Price

So far : Vietnam ASTA USD/lb.. Lowest price in 2017 USD/lb 2.25 CNF NYK



- We do not expect markets to go below 2.00 levels in 2017.
- Based on historic volatility for April and May we could expect markets to trade between 2.40 to 2.70 USD/lb.
- June to Dec period will witness Indonesia and Brazil coming out with their crop and markets could trade weaker in this period.
- Off take and shipments from various origins will be a key factor as buyers postpone buying to the last moment.

Summary

Long Term :

- Global Demand remains strong . Consumption growth in the developing world due to rising incomes and structured change in diet across the globe will demand close to 10,000 MT pepper p.a on an average till 2050.
- Supply will keep improving till farmers make a decent profit.
- We may see ASTA cnf NYK prices falling as low to 1.5-1.75 by 2020 and rise again as farmers cut back inputs and production.

Short term :

- Lack of International Market makers and speculators will lead to reduced liquidity.
- Improving Supply Situation will keep pressure on prices.
- ASTA prices CNF NYK may be steady at current prices till June.
- The second half will be more interesting with Indonesia and Brazil in season.
- Weather will be a key factor in purchase decisions.

Recommendation for 2017 :

Continue to buy slowly ! If you go wrong by 5% then don't wait for the next 5%.