



Current Shrimp industry and its opportunity for Bioeconomy EU-ASEAN collaboration

Soraphat Panakorn (Danny)

Industry Technology Specialist

Novozymes

shrimp



76%



16%



4%

Other shrimp
4%

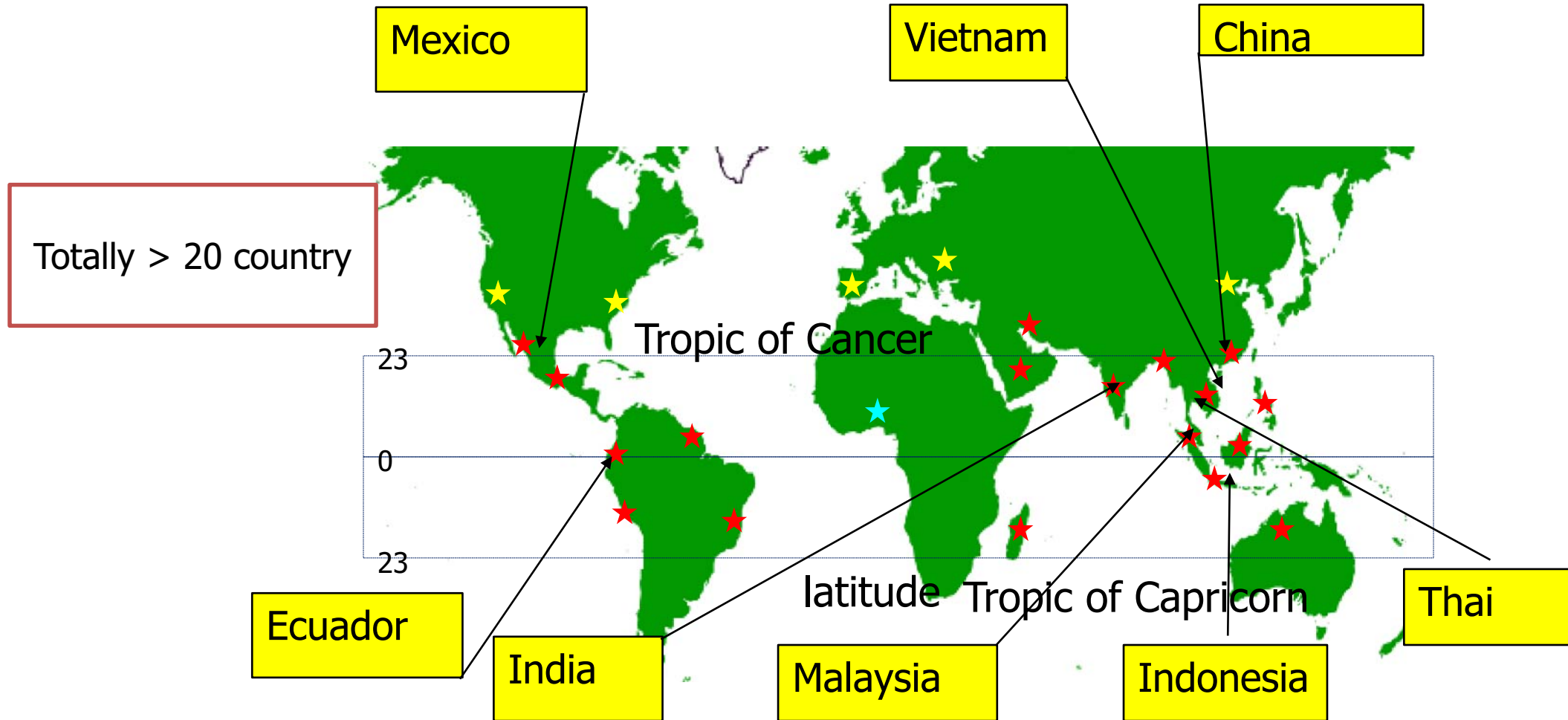




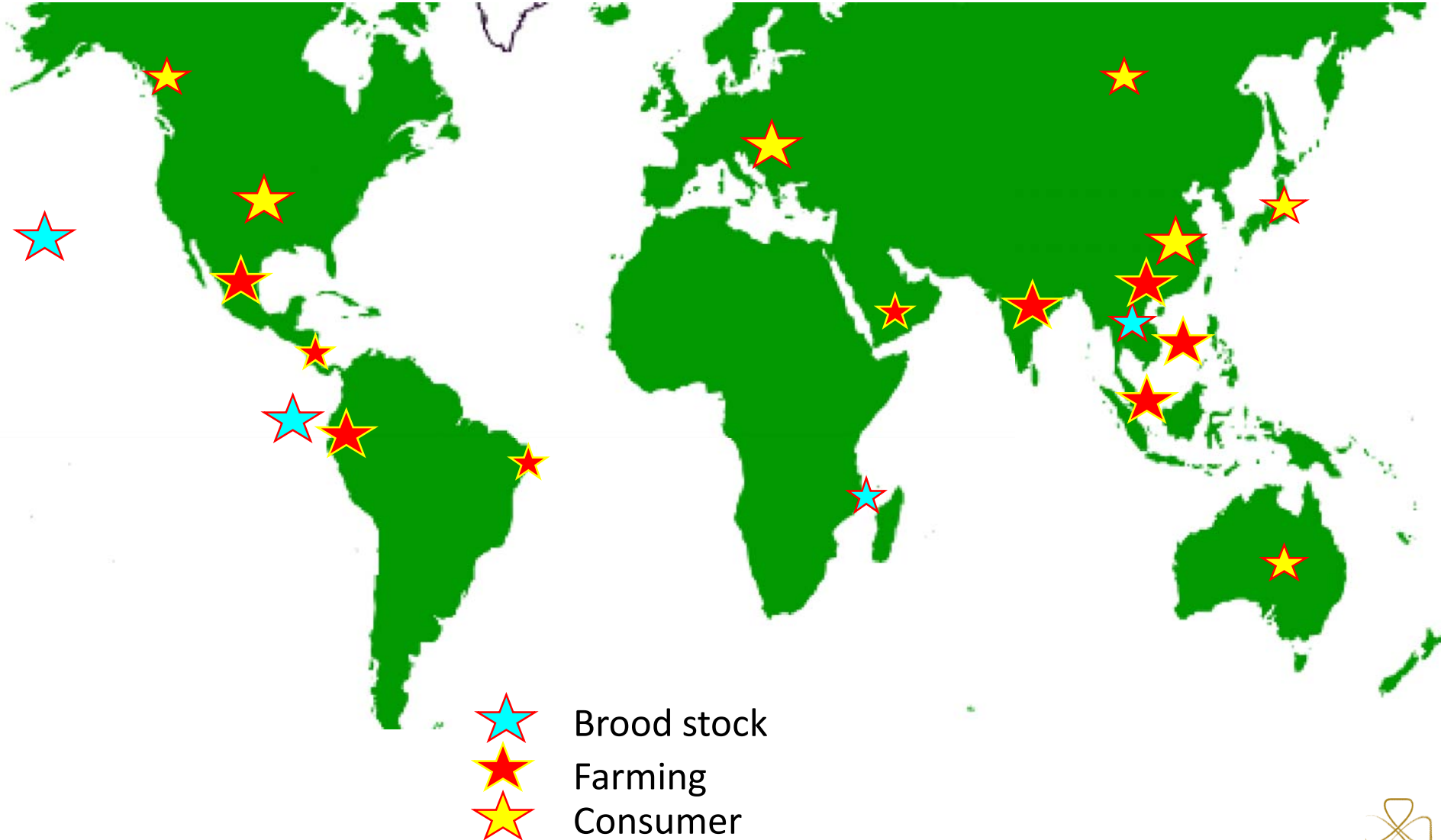
Net pulling, net casting, artificial gate, harvesting machine



Farming area: along equator line (appropriated climate)



Supply chain

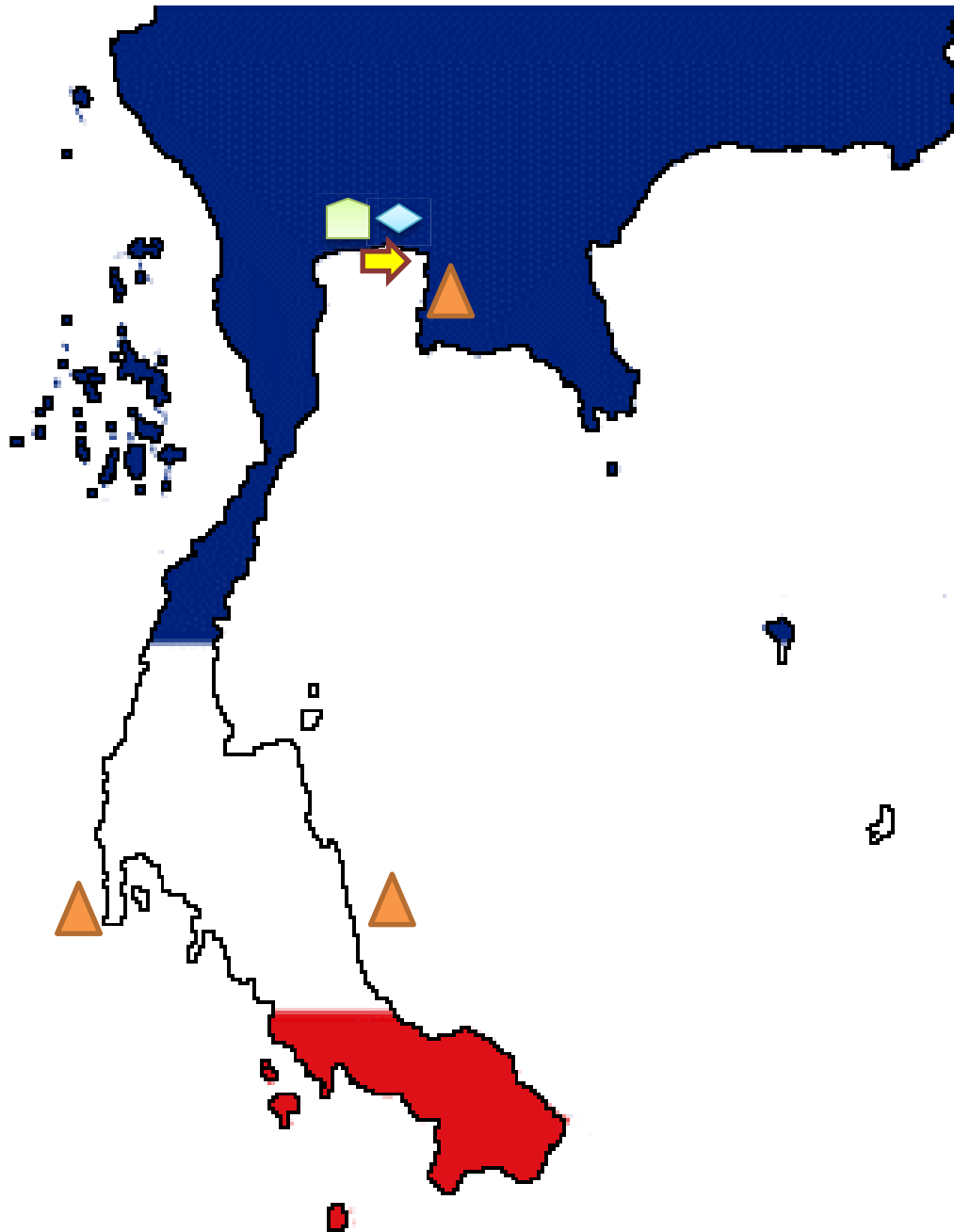


Shrimp industry: production & value

Years	Thai	China	Vt	Indo	India	My	Phlp	Latam	Ecd	A&O	Sum	Value @8\$/kg
2013	250,000	650,000	240,000	180,000	290,000	46,000	52,000	339,890	215,110	80,000	2,093,000	18,717,907,574
2014	230,000	625,000	300,000	200,000	410,000	35,000	57,000	352,834	277,166	100,000	2,357,000	21,718,549,422
2015	260,000	600,000	260,000	220,000	360,000	30,000	48,000	303,274	326,726	150,000	2,298,000	21,606,225,931
2016	300,000	550,000	370,000	270,000	450,000	40,000	53,000	307,192	362,808	180,000	2,583,000	23,451,540,436
2017	300,000	525,000	430,000	260,000	540,000	45,000	55,000	384,266	425,734	210,000	2,875,000	26,275,673,941
2018	290,000	525,000	550,000	270,000	635,000	39,000	56,000	364,143	505,857	230,000	3,175,000	28,120,988,447
2019	290,000	625,000	650,000	280,000	750,000	48,000	58,000	338,000	635,000	250,000	3,634,000	29,918,164,313
2020	220,000	350,000	550,000	230,000	450,000	45,000	400,000	200,000	500,000	80,000	2,805,000	22,620,967,742

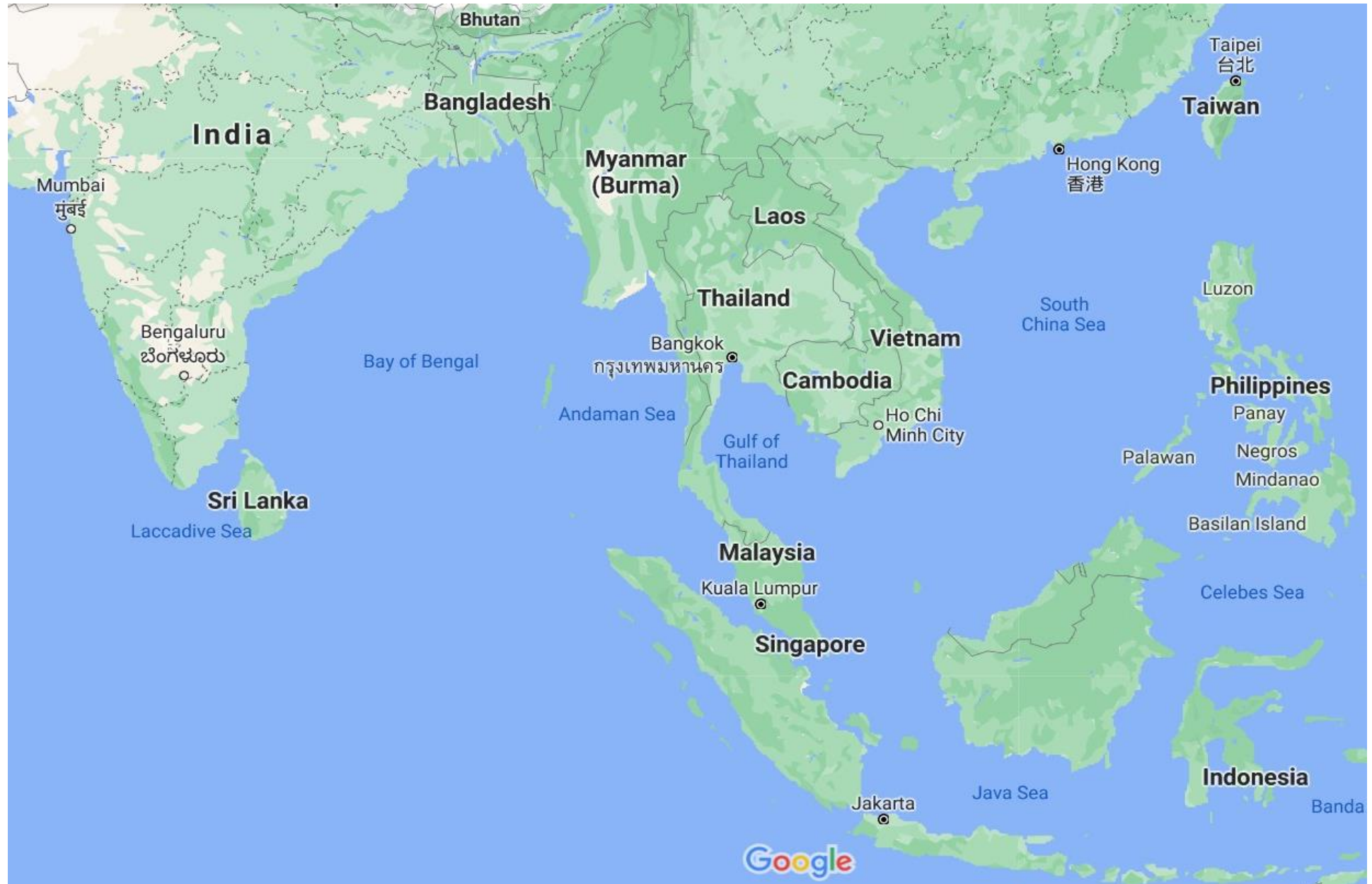


Shrimp industry area in Thailand



- ▲ 10/250 hatchery
- 10,000 farm
- ⬡ 15 feed mill
- ◆ 100 health care
- ➡ 20 processing plant
300,000 worker
290,000 tons
55,000,000,000 baht

Shrimp farm location in Asia



Current shrimp industry situation of Asian country

country	←2019	2020	2021→
China	Consume& export/Stable production/ farming problem	Crop delayed/ PL quality/ storm/ recover from covid /- 40%production/farm relocation	Usual crop/ good PL and healthcare quality/+50% production/ net importer
Vietnam	Fast develop/ strong marketing/ gradually increase/good domestic consumption	Less Covid impact/ stable or increase production/ extreme climate/poor internal market but good external market	Production+20%/ Asian shrimp supply hub/ industry leader/high domestic consumption
Thailand	Stable in all aspect/ limited area/	Medium Covid impact/ white feces disease increase/ high production cost/-20% production	premium shrimp quality supplier/ remain volume/ develop value and Technology
Malaysia	High domestic and neighbor consume/ stable production	Stable in all aspect/ more online marketing for domestic market	Continue as usual
Indonesia	Stable production/slowly increased problem/ expanding to new land	Medium covid impact/ more disease/ - 20% production/	Back to normal/ more disease/
India	Fast production growth/ multiple problem/	Heavy Covid impact / -30-40%production/ serious price drop	Target more domestic market/ improve production/ seek for sustainable industry

Related data on shrimp farming

Country/data	Thai	China	Vietnam	Indonesia	India	Malaysia	Ecuador
culture area (Ha)	20,000	150,000	100,000	50,000	200,000	8,000	300,000
Production 19	290,000	625,000	650,000	280,000	750,000	50,000	635,000
yield(ton)/ha/year (average)	14.5	4.16	6.5	5.6	3.75	6.25	2
species	White	White	B/W	B/W	B/W	B/W	White
stocking density	70-100	30-250	35-150	80-150	25-110	60-100	5-75
Production cost	AVG=4.2\$	AVG 60-80=4.9\$	B40=130 W80=3.6\$+	W70=4.1\$	B40=4.2\$ W50=110 3.6\$	AVG=4.4\$	AVG=3.0\$
Growth trend	+	-	Maintain	+	-	+	Maintain
Govern support	+	+/-	++	+	++	++ /-	+++

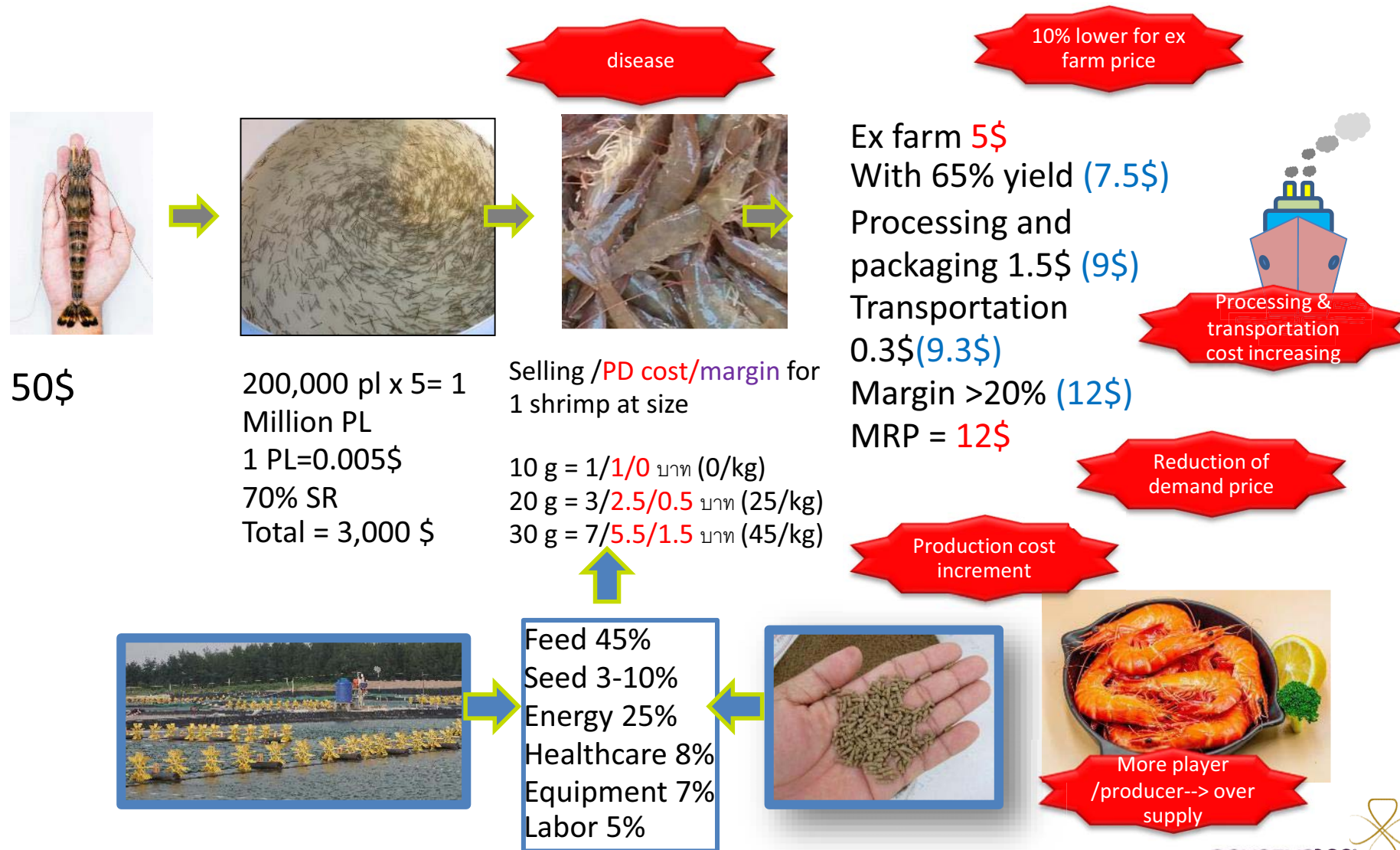
Modified from Soraphat Panakorn Novozymes 2012

Why Thailand production drop?

- Limited piece of land available (15% of other top 5)
- Follow code of conduct issue by EU
- Avoid lower price from over supply
- Focus on production efficiency and product quality.
(longest residual and antibiotic free)



Value Chain & problem



Current shrimp industry problem

- **marketing**

- Covid impact on buying power and economic condition
- Lower demand lower price, over supply
- Complicated screening process, cost increased
- Competitive business from producer, price dumping
- Buyer obtained bargaining power
- Unpredictable future

- **producing**

- Lack of qualified seed
- Water quality problem
- Climate impact on farm management
- Disease Virus, bacteria, NCDs or Non infectious disease
- Loss sell, cut losses



Reference : Chantaburi Shrimp farmer club

sample of key country future strategy



India

Domestic market, focus USA and China, reduce production for this year, promote **premium product**

Thailand

boost up **domestic market** and neighbor country, expanding in existing market channel, **cost management scheme**

China

consume all, export farmer to produce and send back to China, consuming power around 1.5 million ton, if 2020 can produce 300,000 ton, need to import 1.2 million ton

Vietnam

Domestic market is good, great in trading skill both buy and sale. Do all market, **producing efficiency**

Indonesia

Promote all market, plan to promote **local market**. Having special market channel

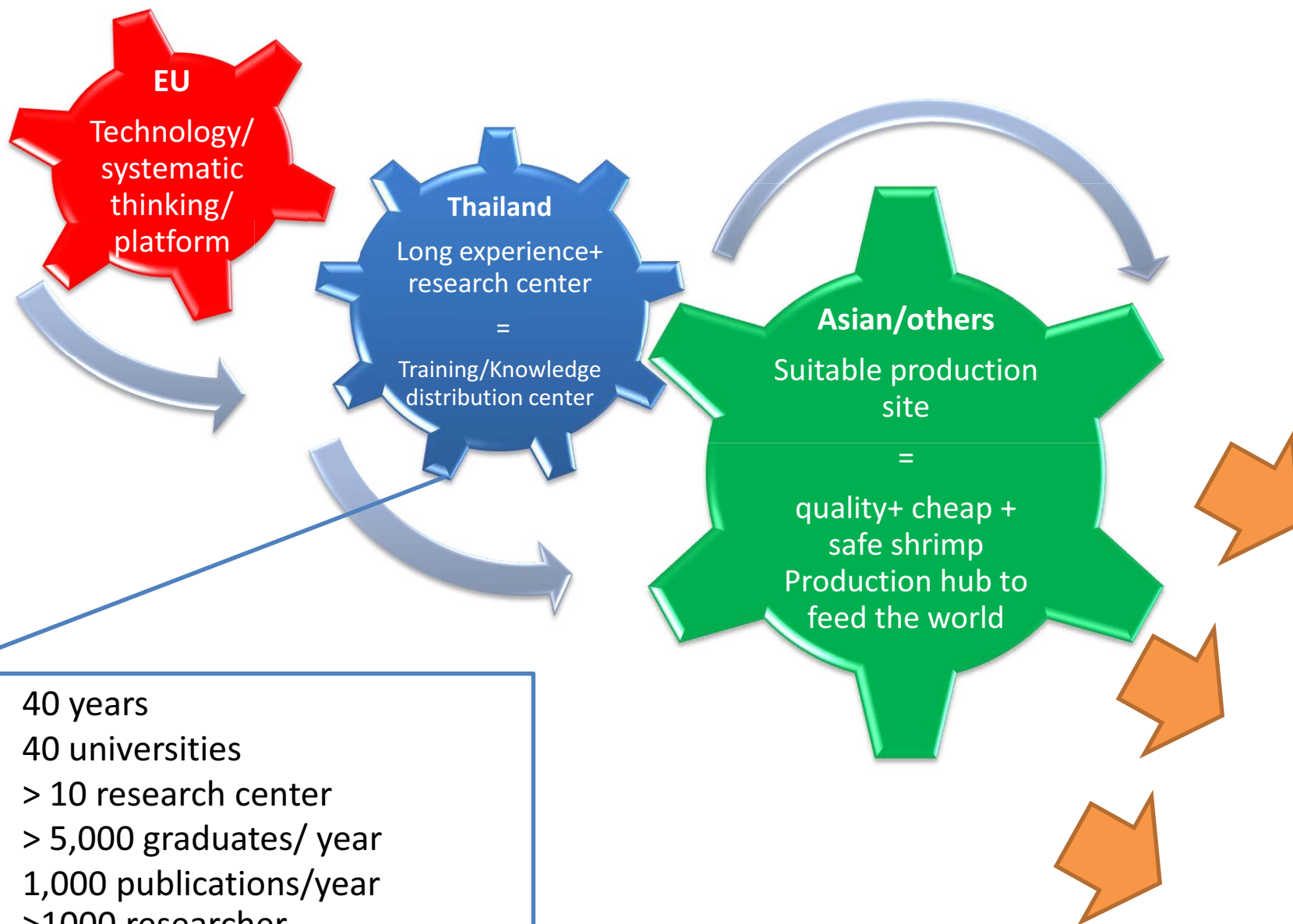
Solution/ knowledge needed

- Production cost management with 6 production cost leaning
- Data collecting and analysis for production planning
- Knowledge base, minimize losses
- Automate system to improve productivity
- Disease mitigation knowledge and method
- Bio base culture system

Feed 45%
Seed 3-10%
Energy 25%
Healthcare 8%
Equipment 7%
Labor 5%



EU-Asian collaboration=Mutual benefit



- 40 years
- 40 universities
- > 10 research center
- > 5,000 graduates/ year
- 1,000 publications/year
- >1000 researcher



Enjoy
your
meal





Viber



Line



ขอขอบคุณครับ

Industry Technology Specialist
Novozymes Thailand



Zalo



Email :

january161975@gmail.com

Whatsapp &MP:

- 1) +66 86 886 5223
- 2) +66 86 344 4744

Wechat



