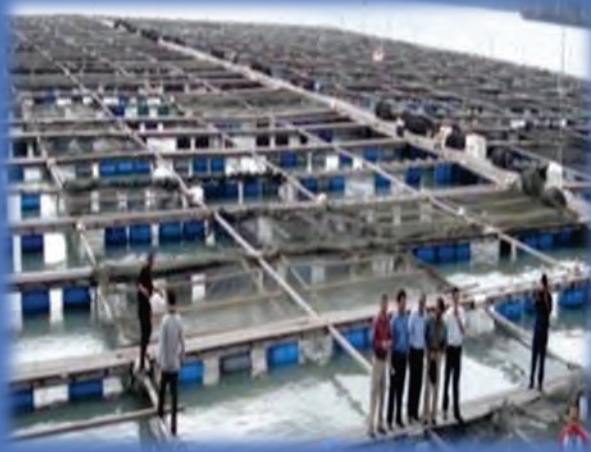


CURRENT STATUS OF AQUACULTURE IN MALAYSIA



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AQUACULTURE IN MALAYSIA

PRESENTATION OUT LINES

1. Brief History
2. Malaysia Aquaculture Production
3. Role of Aquaculture
4. Zoning – AIZ
5. NKEA for Aquaculture

AQUACULTURE IN MALAYSIA

Aquaculture Issues

1. vs development – urbanization, industrialization, agriculture etc...
2. vs environment – ecosystem conservation, pollution, NGO's, etc.....
3. Marketing – standard, certification, food safety.....
4. Investor - ??

Aquaculture Development:

Brief history

- Began in 1920's with the extensive poly-culture of Chinese carps in ex-mining pools.
- Mid 1930's, marine shrimp trapping ponds.
- Early 40's, the culture of blood cockles.
- Mid 50's, extensive culture of freshwater fishes in earthen ponds.
- Early 1970's, the semi-intensive culture of shrimp.
- In the 80's, commercial aquaculture (establishment of fish and shrimp hatcheries and the setting up of private feed mills).
- In the 90's commercial scale integrated shrimp farms (from hatchery to processing plant & export).
- In the 2000's emphasis on food safety and fish health management from source to table.

Water for Aquaculture



Water area is the sum of the surfaces of all inland water bodies, such as lakes, reservoirs, or rivers, as delimited by international boundaries and/or coastlines.

Ex-mining – 1,466 ha

Cages – 48 ha

Ponds – 5,355 ha

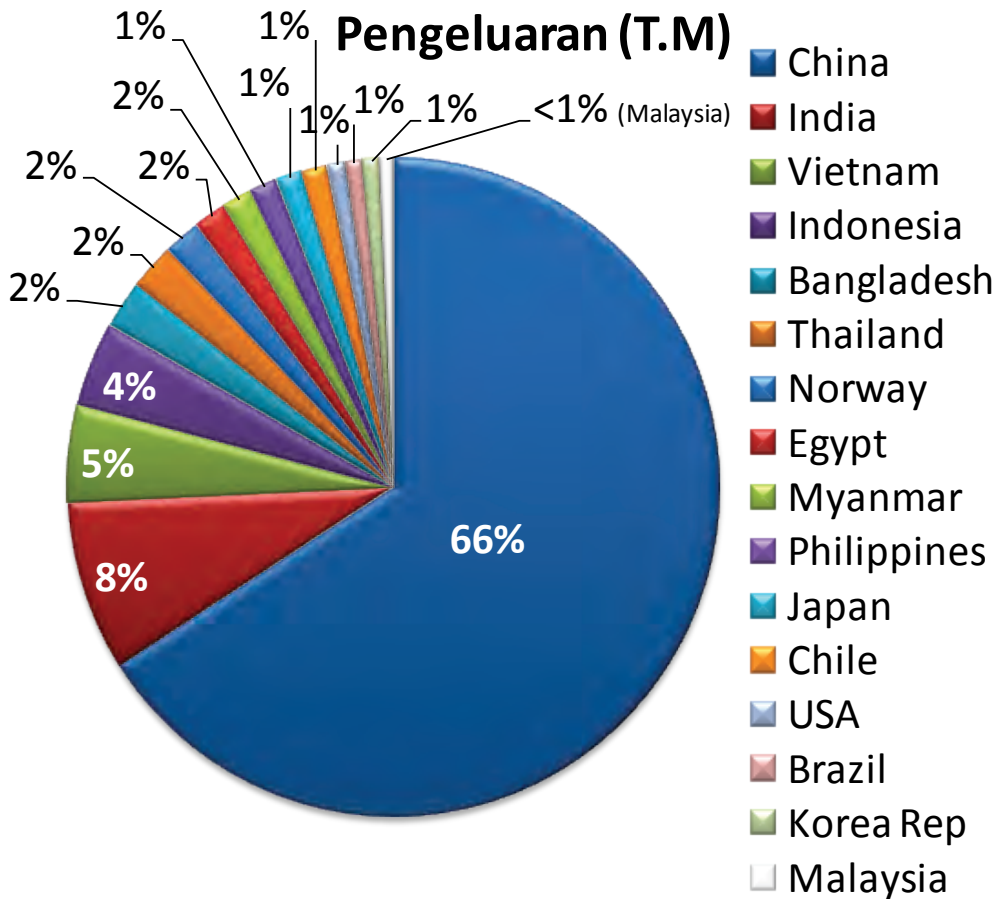
Marine/brackish water – 28,000 ha
(2011)

Land AREA of Malaysia
329,758 sq km

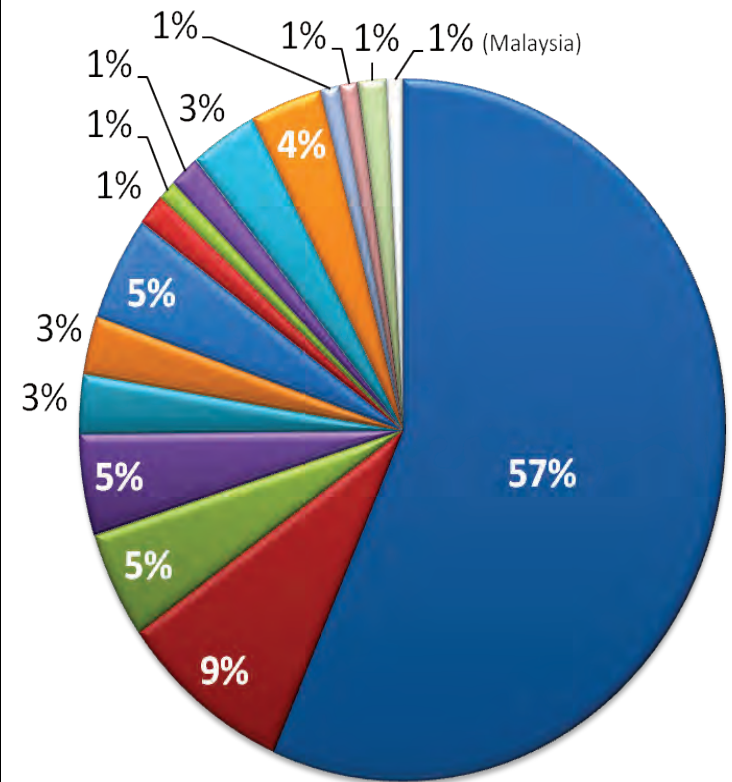
Area: total: 329,847 sq km
land: 328,657 sq km
water: 1,190 sq km

MALAYSIA AQUACULTURE PRODUCTION

Pengeluaran (T.M)



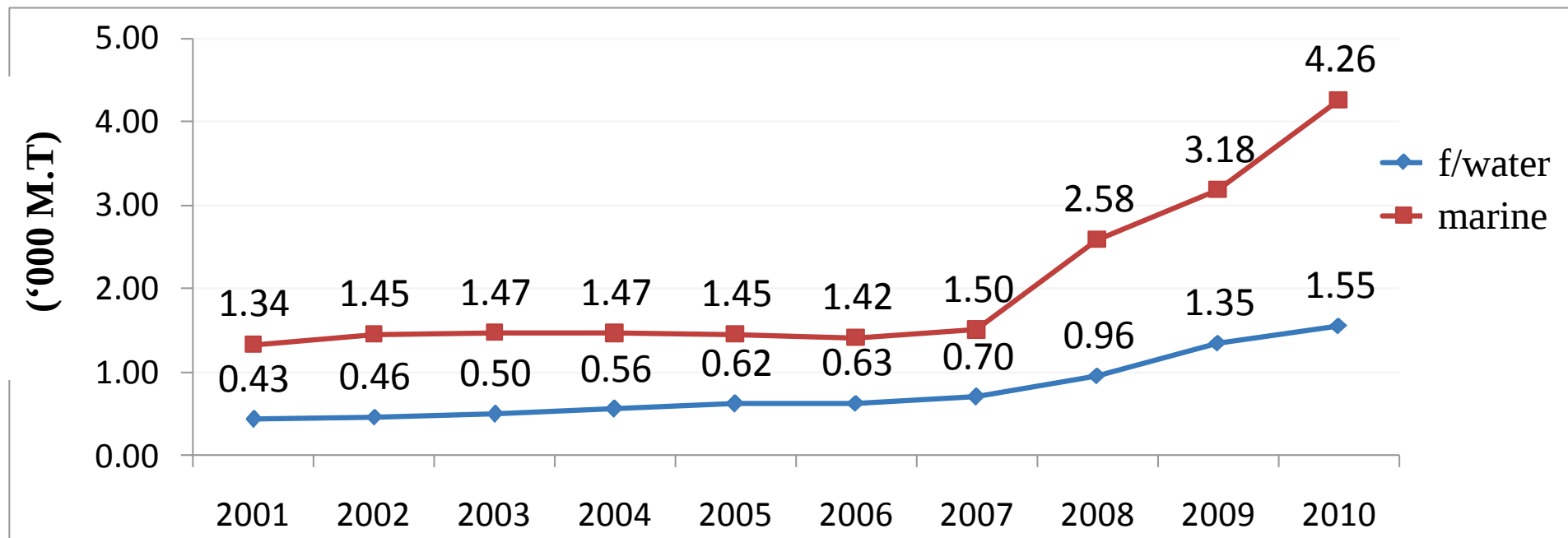
Nilai (USD '000)



Sumber : FAO (2010)

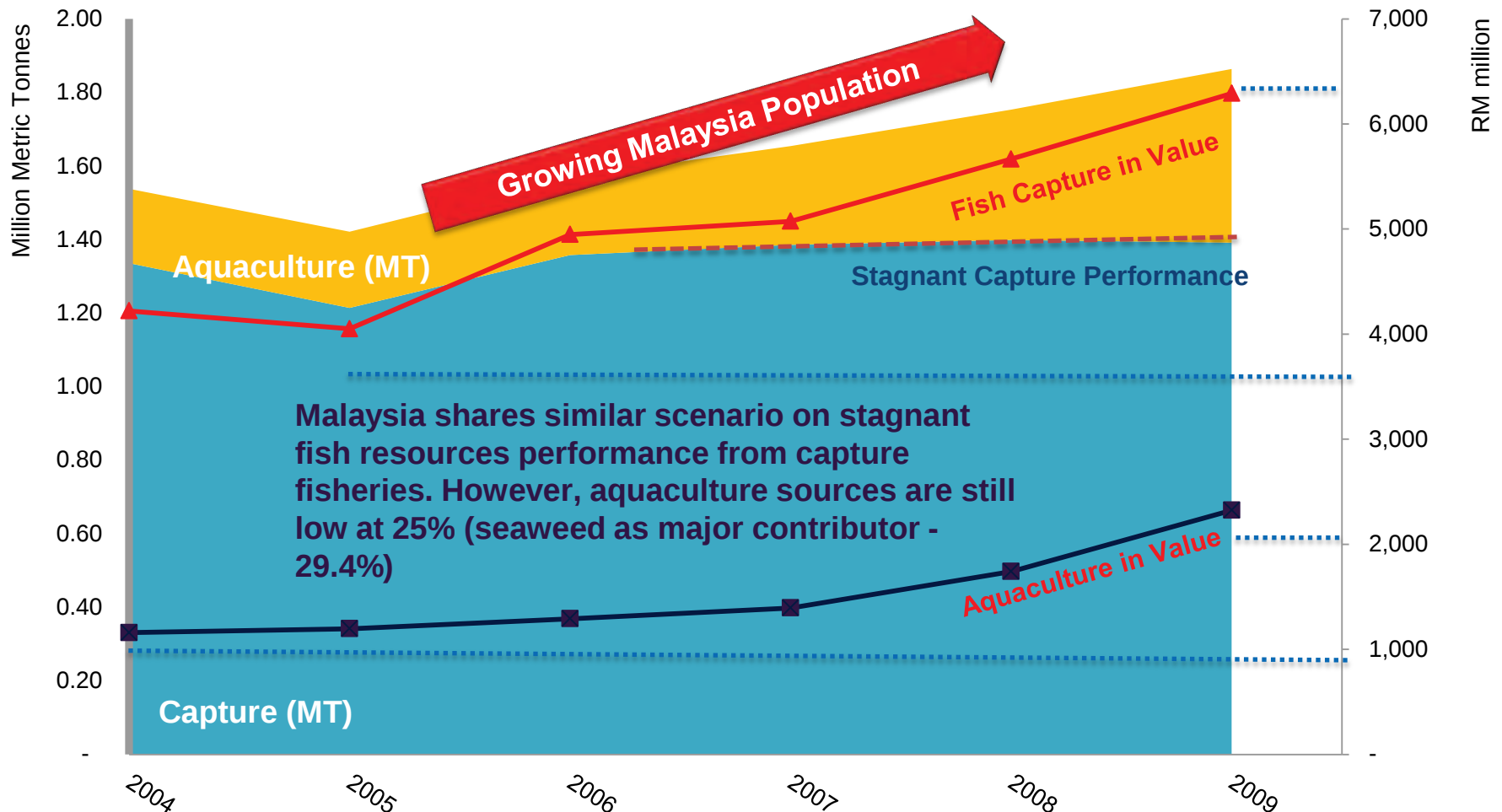
AQUACULTURE PRODUCTION: 2001-2010

COMMODITY / YEAR	PRODUCTION (M.T)									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MARINE	133,562	145,439	146,927	146,668	145,213	141,719	150,374	258,447	317,769	425,649
FRESH WATER	43,456	46,403	49,947	55,557	62,006	62,733	70,064	95,918	135,238	155,398
TOTAL	166,973	191,842	196,874	202,225	207,219	203,452	220,438	354,365	453,859	581,048



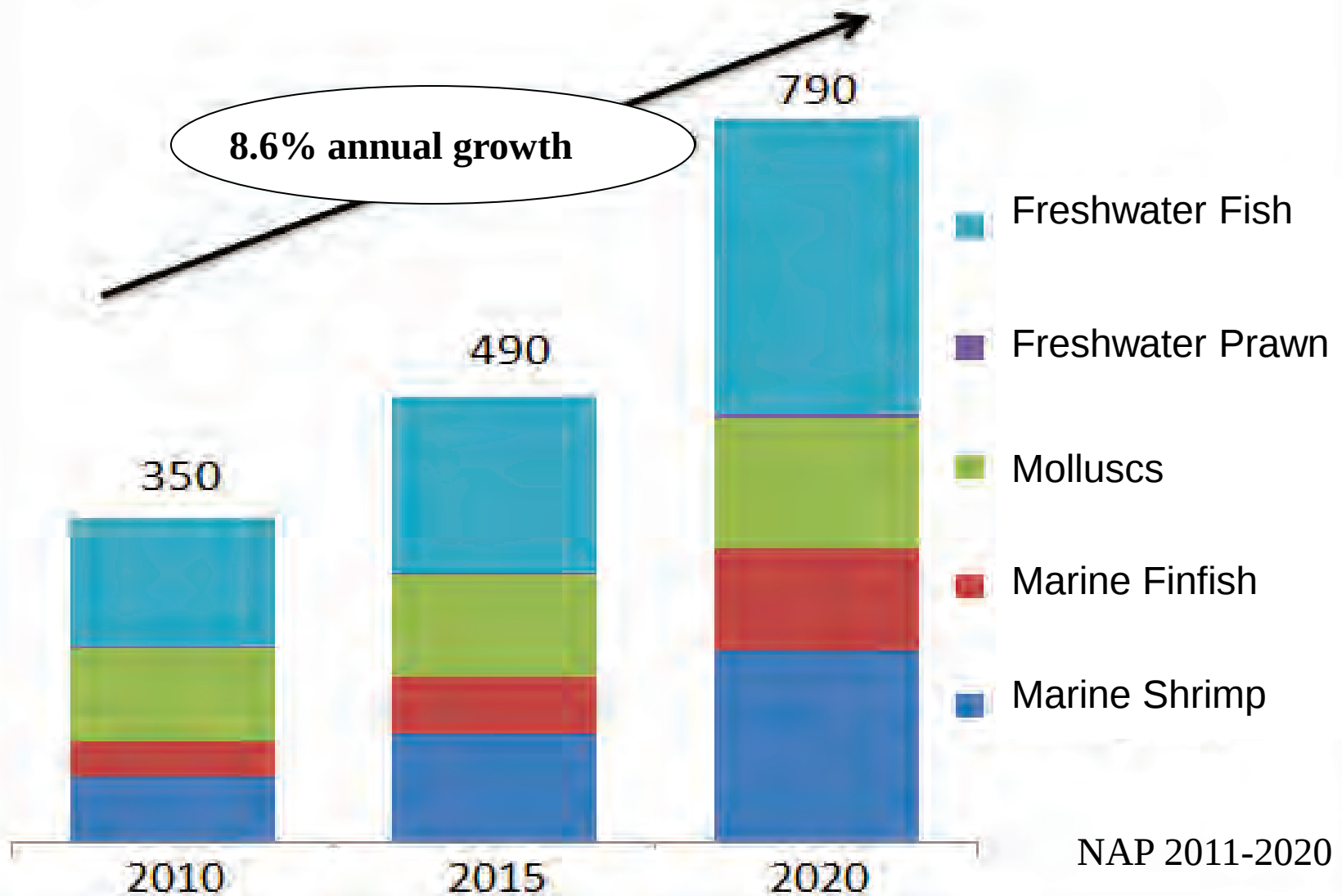
Malaysian Fisheries and Aquaculture Performance

As of 2009, Malaysian fishery performance is still dependent on capture.
In view of **growing population** and **stagnant capture resources**, aquaculture must be increased **further** from current 25% contribution.



Source: Perangkaan Perikanan, Jabatan Perikanan Malaysia

AQUACULTURE TARGETED PRODUCTION 2010-2020 ('000 M.T.)



Freshwater Cage Aquaculture



2
Cultured
Species



Black Tilapia



Red Tilapia



RIVERINE CATFISH (*Pangasius* sp.)

Marine Cage Aquaculture

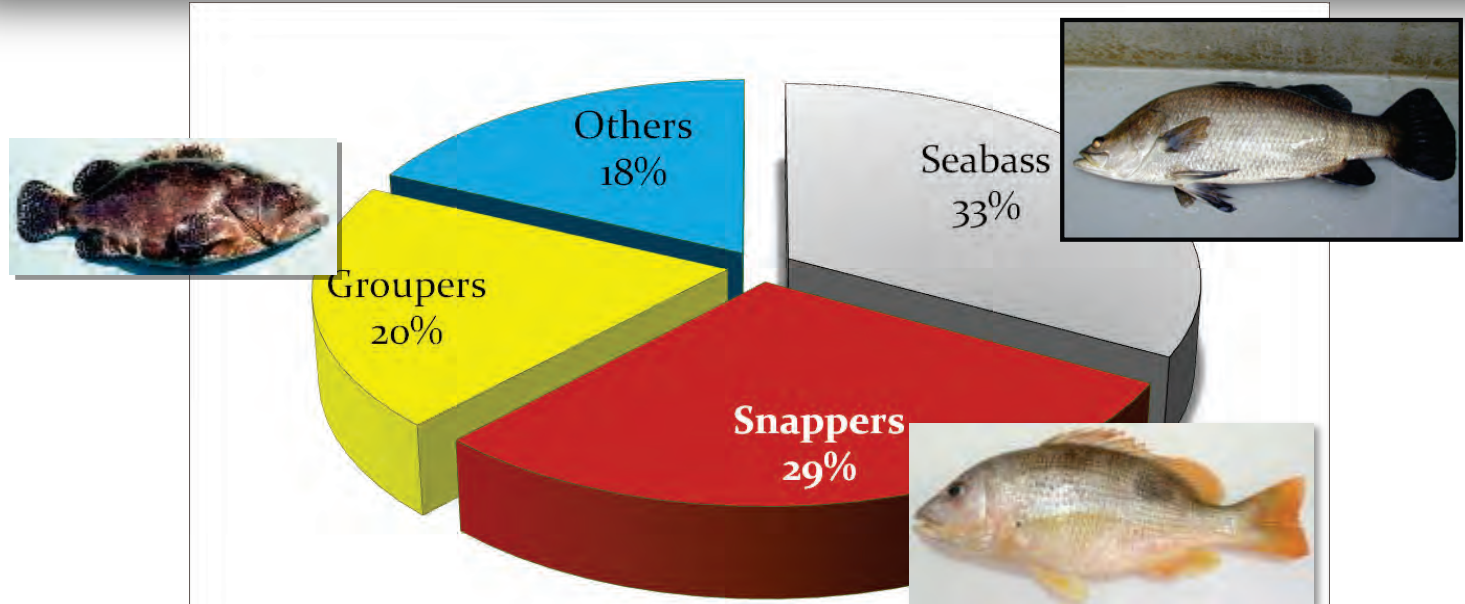
1

Culture Technology



2

Cultured Species



The Roles of Aquaculture



- Reduce gap between supply vs demand of food fish (National food security),
- Lessen pressure on capture fisheries,
- Generate foreign exchange earnings,
- Provide employment & career development,
- Diversify /alternative income to fishermen & farmers,
- Provide business & investment opportunity.

Aquaculture Potential Resources



The Zoning of Aquaculture Area

- Aquaculture Industrial Zones (AIZ) are designated zones for both lands and water bodies which are granted by the state government for commercial scale aquaculture projects.
- At present : 49 sites covering more than 28,000 hectares.
- The Federal Government's contribution in developing these areas is to provide:-
 - Macro planning
 - Technical support.
- The projected aquaculture production is 400,000 metric tonnes with a value of RM5.8 billion.

COMMODITY OF INTEREST

Commercial Aquaculture Species

- **Freshwater aquaculture:**

Tilapia (*Oreochromis sp.*),

Catfish (*Clarius sp.*, *Pangassius sp.*),

and Freshwater Prawn (*Macrobrachium rosenbergii*).

- **Marine aquaculture:**

Finfish: Sea bass, grouper, snapper,

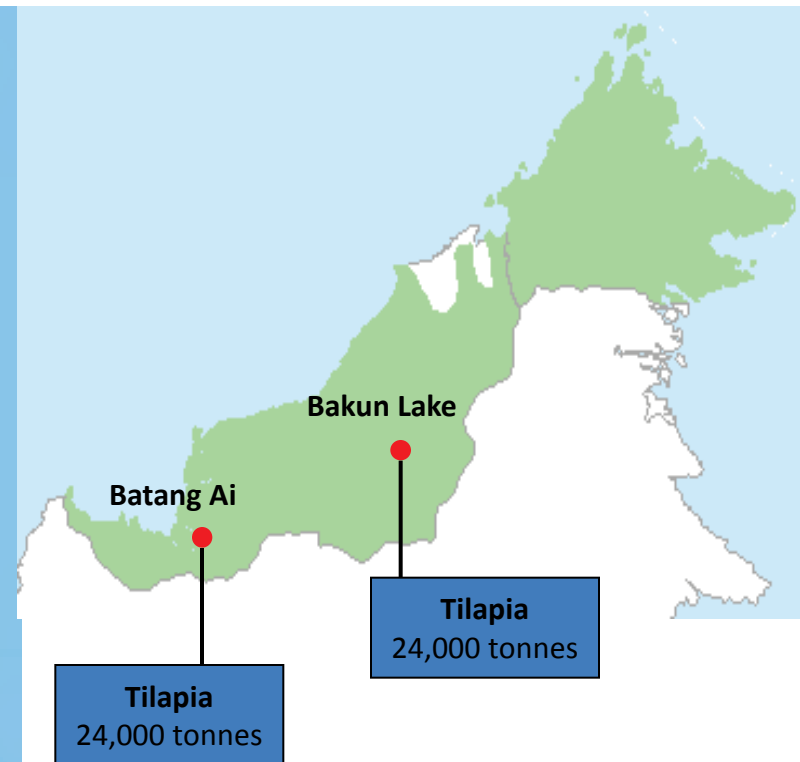
Crustaceans: Black tiger shrimp (*Penaeus monodon*),
white shrimp (*P. vannamei*),

Bivalve – cockle, mussel and oyster,

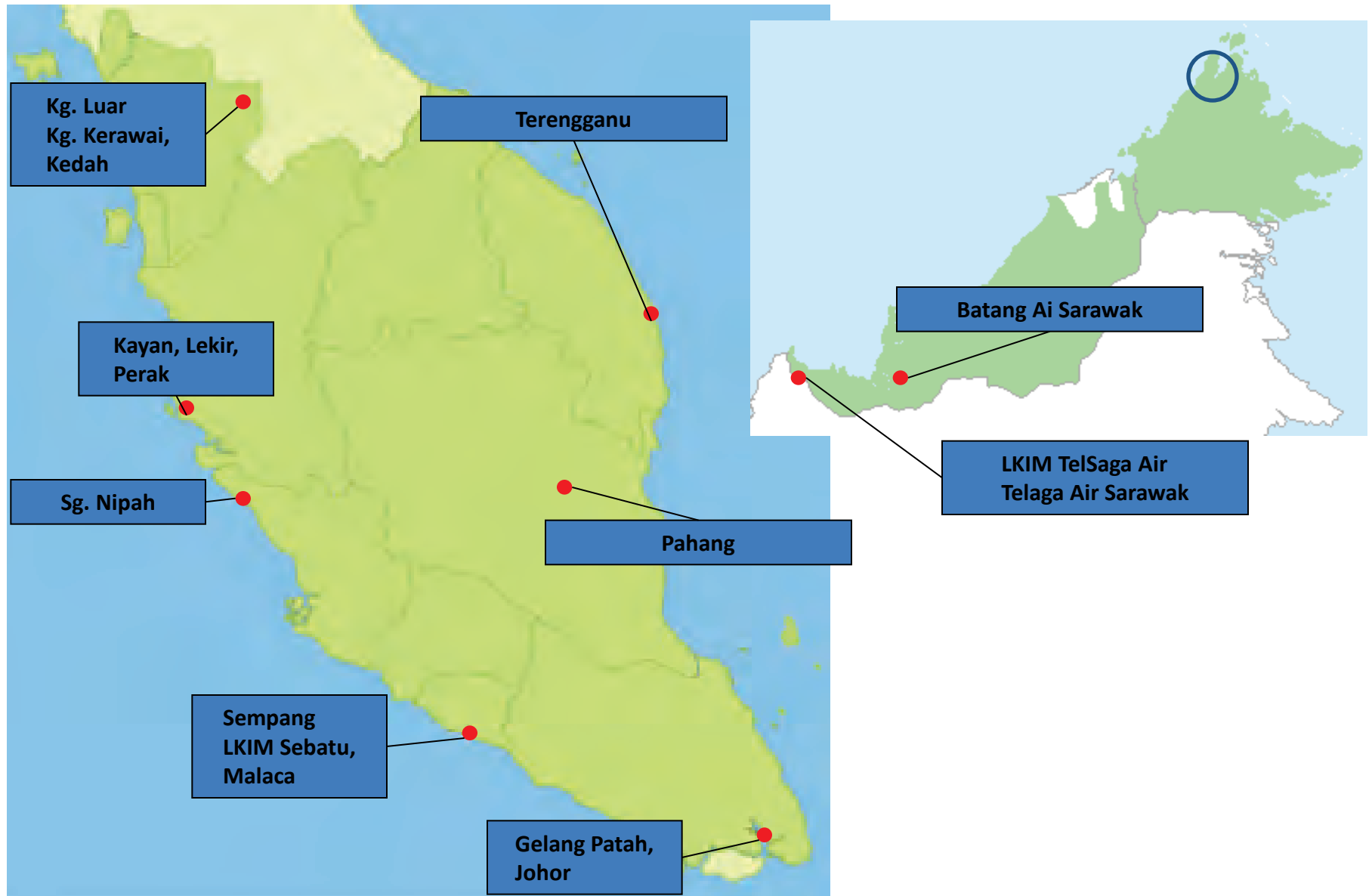
Seaweed – *Kappaphycus alvarezii*



AIZ -Potential Cage Farming Area



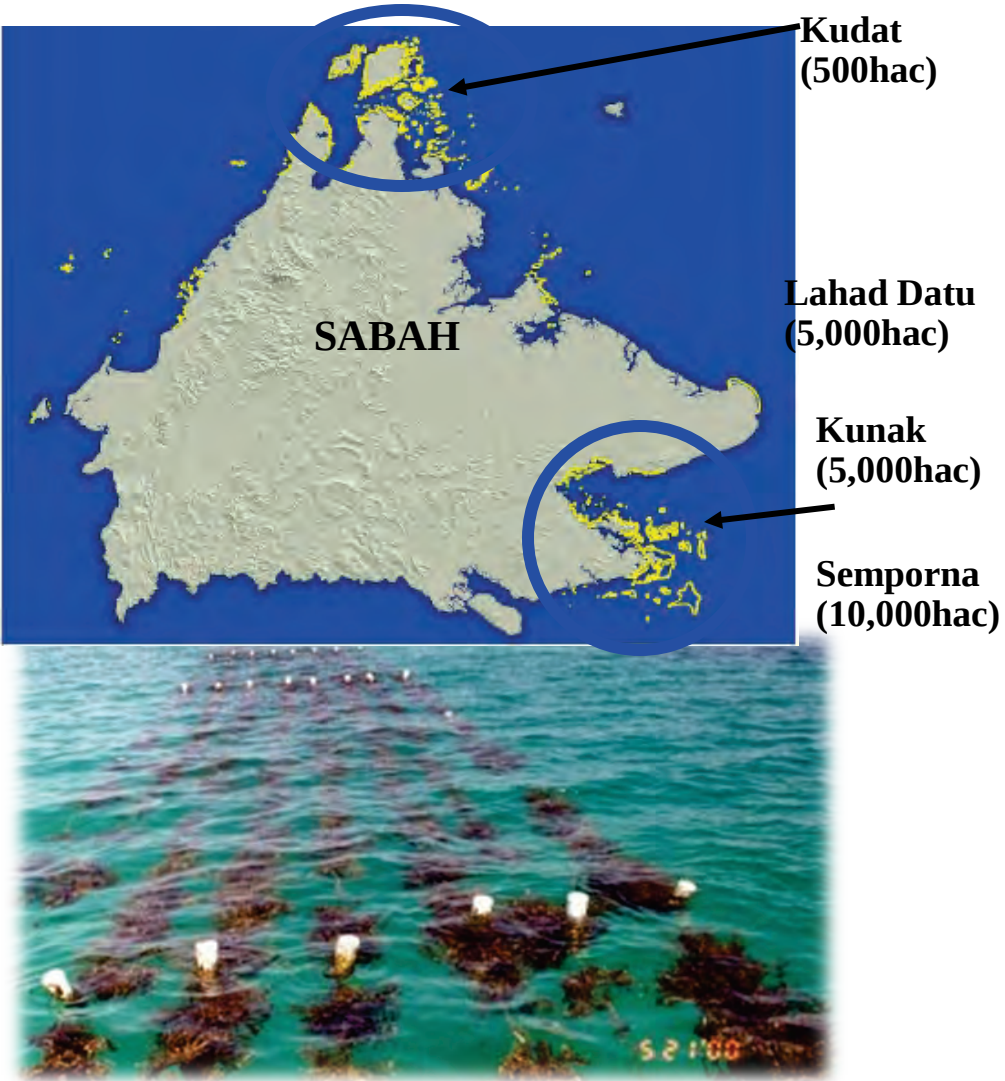
AIZ – Land based aquaculture



28,000 ha area identified as a Cluster Model of Mini Estate Seaweed

Projection 2010

- Area 28,000 HA**
 - Small scale farmers 8,000 ha
 - Commercial 20,000 ha
- Production 150,000 tm M (dry)**
 - Small scale farmers -50,000 tm
 - Commercial - 100,000 t.m
- Price**
 - Seaweed (dry wt) RM5,000/t.m
 - Product (refined) RM18,000/t.m
- Sale value**
 - dry wt RM150 mil.
 - Product RM1,296 mil.
 - Operation cost RM185 mil.
 - GNI RM1,261 / USD394 mil.



IMPLEMENTATION STRATEGIES

(SSL) : Fisheries
> 100%

NATIONAL AGRO-FOOD POLICY (2011- 2020)

Increase
Existing
Production
Unit

Development
of new area

Increase
Competitiveness
(R&D&C,
ToT, HRD)

Zoning of
aquaculture
area (ZIA,
TKPM)

Promotion
eksport

Increase
local
market

GAqP
(FQC,
SPLAM,)

Development strategy



NKEA-AQUACULTURE

Integrated Zone of Aquaculture

Integrated Cage Farming

Seaweed Mini Estate





Thank You
Terima kasih