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SHRIMP FARMING IN PENINSULAR MALAYSIA: A STUDY IN GLOBALIZATION AND MARGINALIZATION

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Universities Of Fribourg Switzerland

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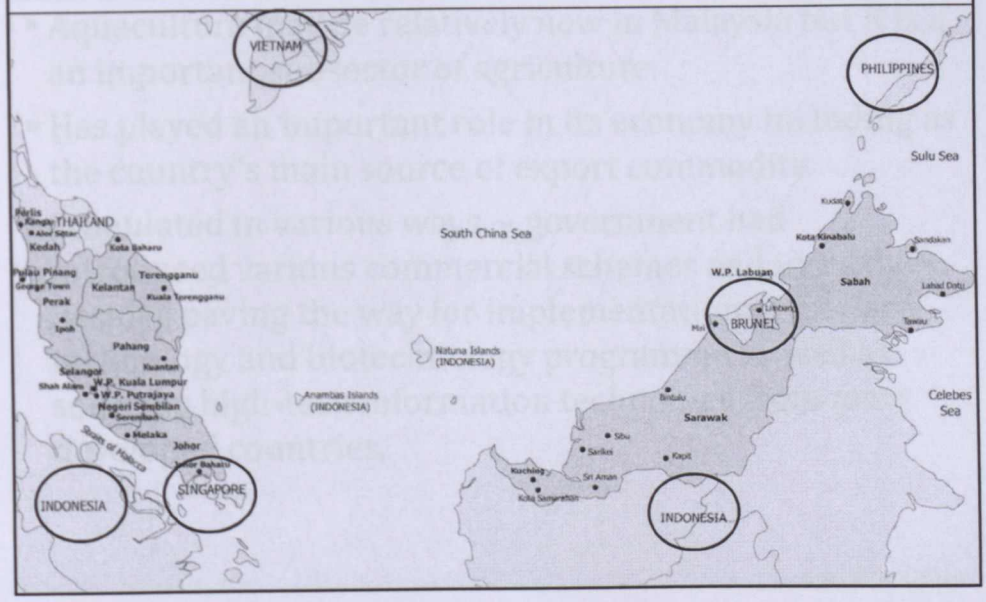
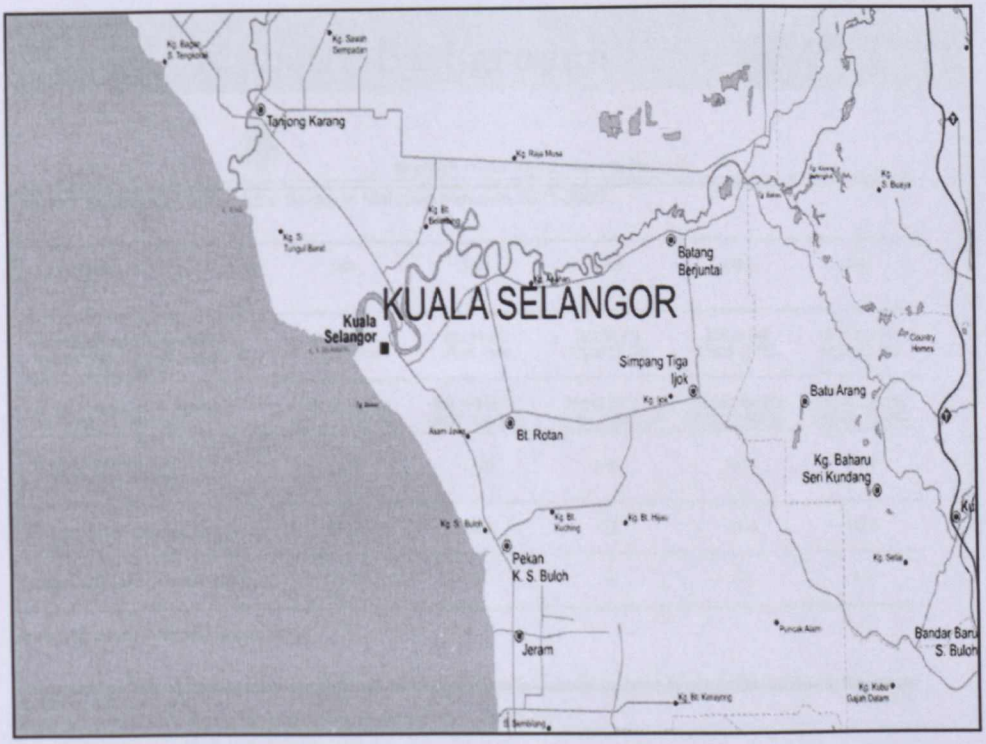
Malaysia?

WHERE IS MALAYSIA?

Map of Malaysia





Shrimp Industry background

UNIVERSITI MALAYA

- Aquaculture may be relatively new in Malaysia but it is a an important subsector of agriculture.
- Has played an important role in its economy including as the country's main source of export commodity.
- Stimulated in various ways ~ government had introduced various commercial schemes and incentives besides paving the way for implementation of modern technology and biotechnology programme as well as sourcing high-tech information technology from more developed countries.

Shrimp Industry background

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Brackish Water Aquaculture in Malaysia

Table 1 Statistics of Agricultural Sector in Malaysia between 2001-2005

Vital Statistics	2001	2002	2003	2004	2005
Gross Domestic Product (GDP) at Current Prices for Agricultural Sector (RM / $ million USD)	RM 28,245 USD$ 8,070	RM 34,432 USD$ 9,838	RM 38,971 USD$ 11,135	RM 43,949 USD$ 12,557	RM 43,854 USD$ 12,529
Grand Total Exports of Agriculture Sector (RM /$ '000 USD)	RM 45,480,211 USD$ 12,994,346	RM 39,840,597 USD$ 11,383,028	RM 61,797,241 USD$ 17,656,355	RM 62,884,272 USD$ 17,966,935	RM 71,196,786 USD$20,341,939
Employment In Agriculture Sector ('000) including Fisheries	1,416	1,424	1,408	1,453	1,470
Employment in Fisheries Sector only ('000)	106.6	103.1	110.5	111.0	111.3
Employment in Fisheries Sector only (%)	1.1	1.1	1.1	1.1	1.1

Source: Department of Statistics Malaysia, 2007

K. Irvine, T. Murphy, V. Vanchan, and S. Vermette (eds.). SE Asia Center. NY. pp. 271-289.

Aquaculture Production (1982-2006)

Table 2 Statistics of Marine Fish Landings and Aquaculture Production and Value in Malaysia between 1982-2006

Year	Number of Fishermen	Marine Fish Landing			Aquaculture Production		
		Tonnes	Value RM ('000)	Value USD$ ('000)	Tonnes	Value RM ('000)	Value USD$ ('000)
1982	80,237	567,323	1,234,231,334	352,637,524	14,865	46,139	13,183
1983	75,590	570,527	1,286,523,081	367,578,023	12,910	42,694	12,198
1984	76,368	600,473	1,359,428,957	388,408,273	4081	14,038	4,011
1985	69,530	574,354	1,337,678,411	382,193,832	51,710	49,606	14,173
1986	59,452	561,967	1,339,272,170	382,649,191	51,644	42,631	12,180
1987	60,569	859,014	1,342535,840	383,581,669	46,200	48,800	13,943
1988	88,963	825,631	1,375,868,876	393,105,393	46,958	89,627	25,608
1989	93,545	882,492	1,665,821,108	475,948,888	53119	118,207	33,773
1990	88,494	951,307	1,960,595,274	560,170,078	52,303	132,779	37,937
1991	84,862	911,933	1,852,926,243	529,407,498	64,844	165,154	47,187
1992	85,085	1,023,516	2,379,995,900	679,998,829	79,699	207,363	59,247
1993	80,278	1,047,350	2,378,613,100	679,603,743	105,237	292,430	83,551
1994	79,802	1,065,585	2,584,294,776	738,369,936	114,114	365,042	101,441
1995	82,200	1,108,436	2,710,905,665	774,544,476	132,747	392,670	112,191
1996	79,616	1,126,689	3,322,157,377	949,187,822	109,062	462,402	132,115

K. Irvine, T. Murphy, V. Vanchan, and S. Vermette (eds.). SE Asia Center, NY. pp. 271-289.

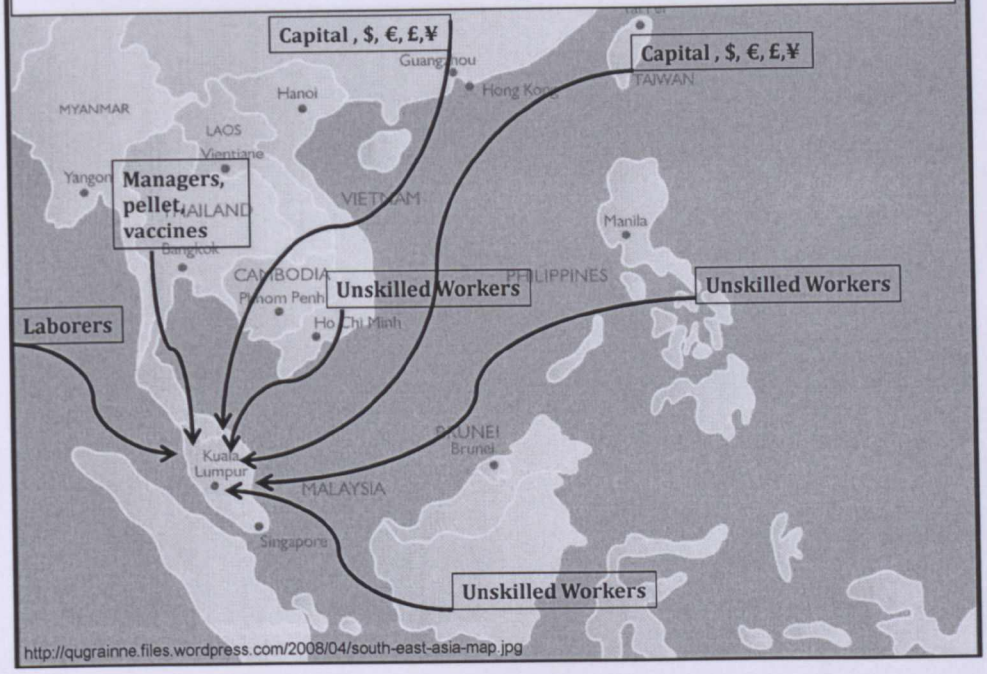
Aquaculture Production (2004-2007)

Table 3 Aquaculture Production (tonnes) by State in Malaysia between 2004-2007

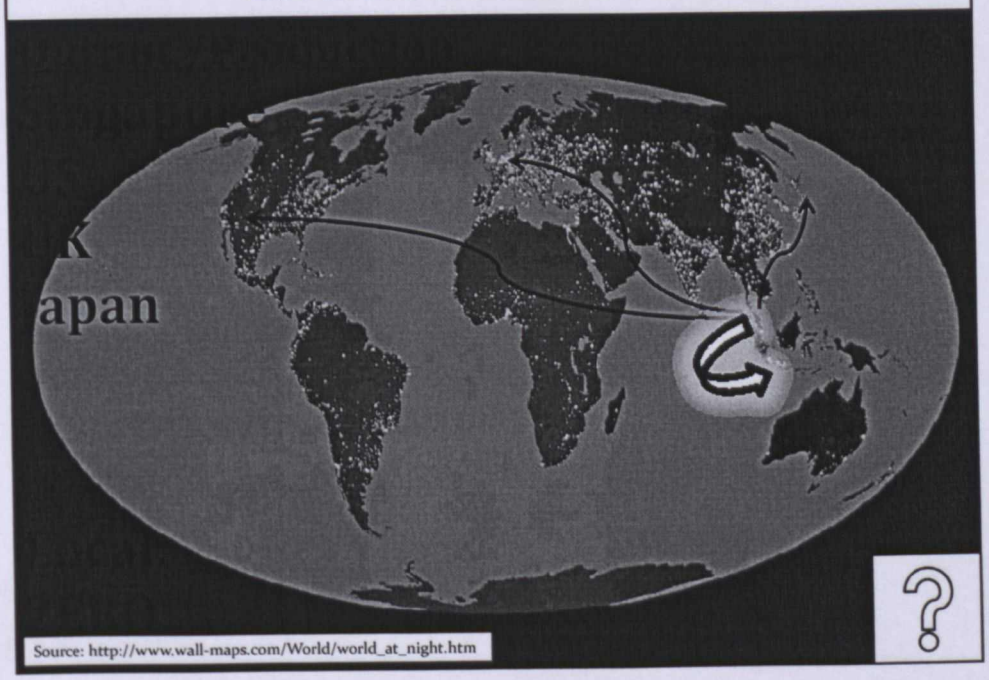
State	2004	2005	2006[P]	2007[*]
Perlis	143.83	186.65	228.54	239.97
Kedah	3,145.66	1,580.41	2,692.39	2,826.31
Pulau Pinang	11,327.61	14,226.11	16,233.33	17,044.89
Perak	53,837.50	47,509.61	45,143.01	47,400.16
Selangor	15,253.94	17,081.70	9,099.35	9,554.32
Negeri Sembilan	538.02	372.65	453.85	476.54
Melaka	225.83	308.96	177.10	185.95
Johor	15,965.72	17,415.51	18,962.96	19,911.11
Pahang	2,786.95	2,581.31	3,751.38	3,938.95
Terengganu	403.00	770.44	936.19	942.29
Kelantan	394.58	383.07	206.24	216.55
Sarawak	8,478.11	8,430.59	8,469.00	8,852.12
Sabah	34,167.29	34,366.04	34,366.04	36,084.34
Grand Total	**146,668.04**	**145,213.05**	**140,719.28**	**147,673.50**

[P]: projection; [*]: estimation Source: Department of Statistics Malaysia, 2007b; note that totals in 2007 are different from Table 2 because above data are estimations.

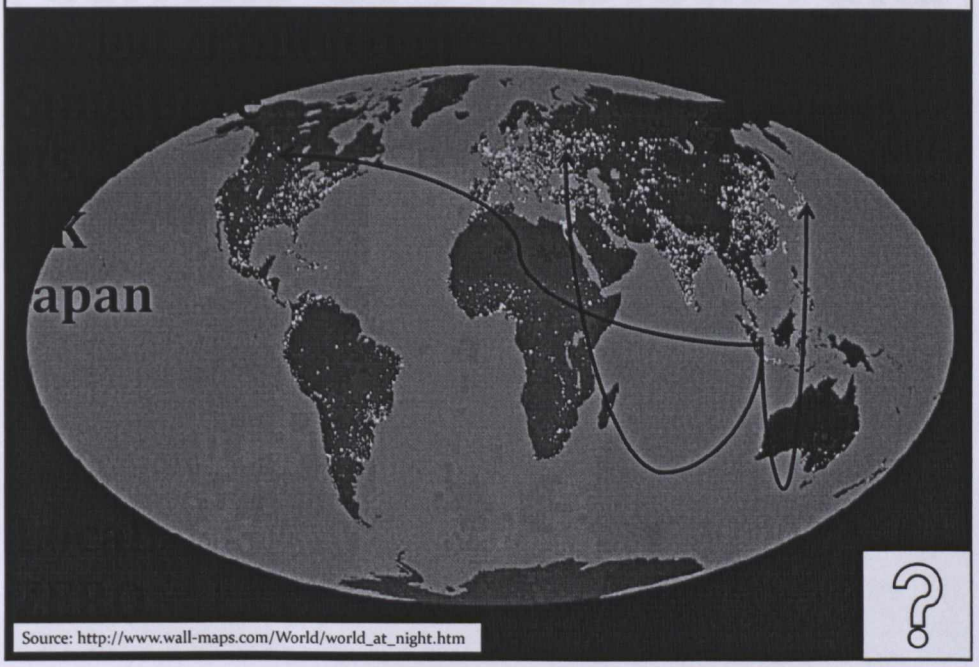
CENTRE OF AQUACULTURE



GLOBALIZATION



GLOBALIZATION



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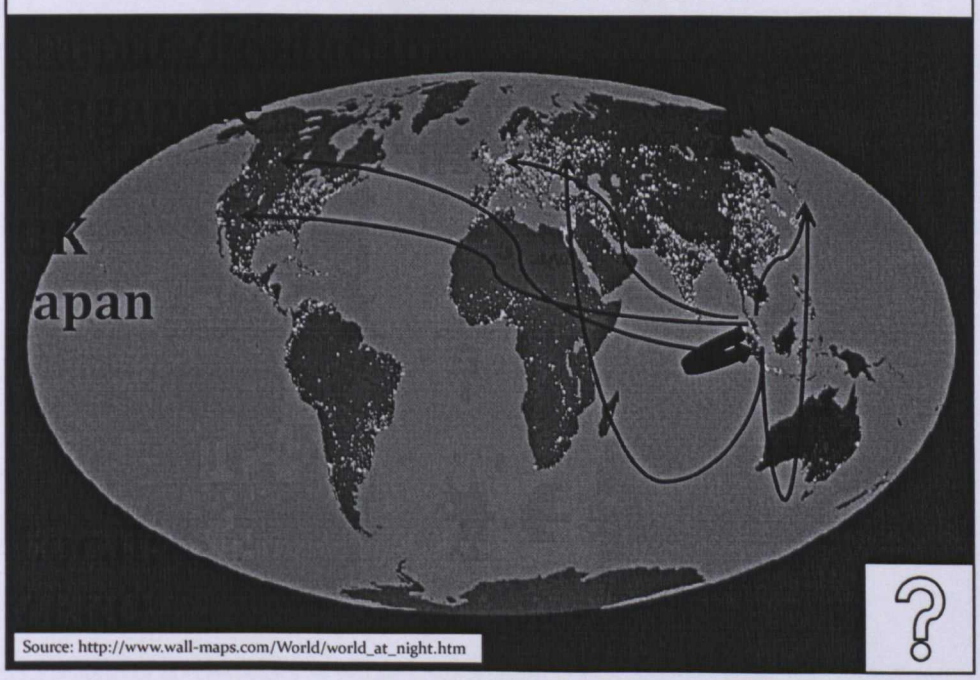

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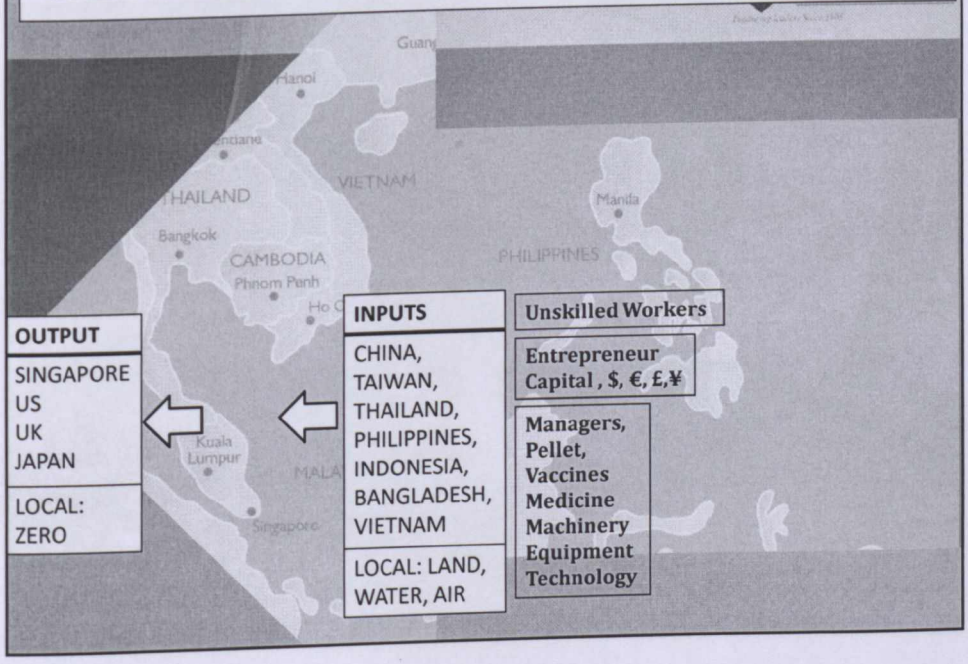
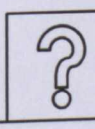


marginalization

Who Gets Marginalized?

1. Local people
   - Loss of income
   - Loss of accessibility to the sea
   - Floods – blocking natural flow of water & loss of mangrove protection
   - Depletion of Natural resources
   - Erosion of social fabric



marginalization

Local people suffer – reduced in fish catch

marginalization

Farmers try to protect their bananas from monkeys using recycle fishing net

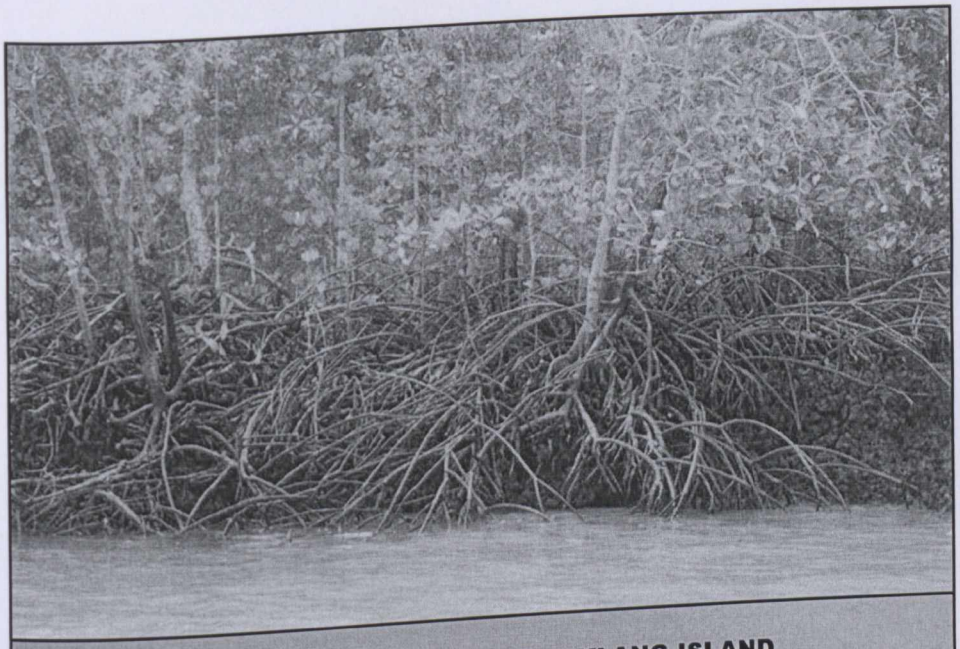
marginalization

Who gets Marginalized?

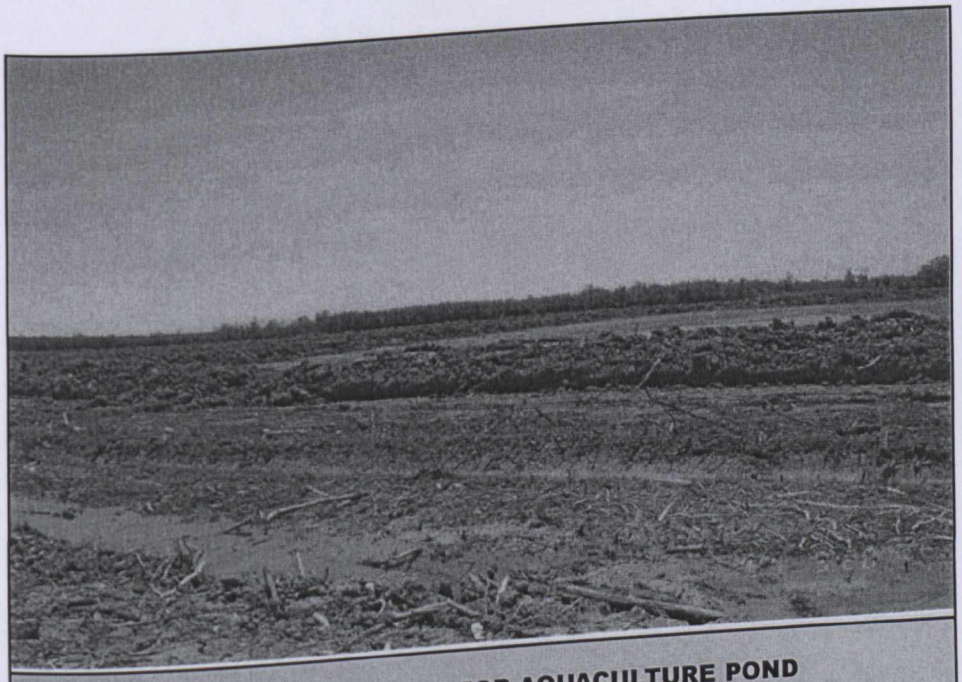
2. Fauna and Flora

- Loss of habitat
- Loss of foods
- Change in view regarding animals ~ nuisance/pest
- Disturbance to local peoples

Mangrove ecosystem



MANGROVE FOREST IN KLANG ISLAND



LAND CLEARING FOR AQUACULTURE POND

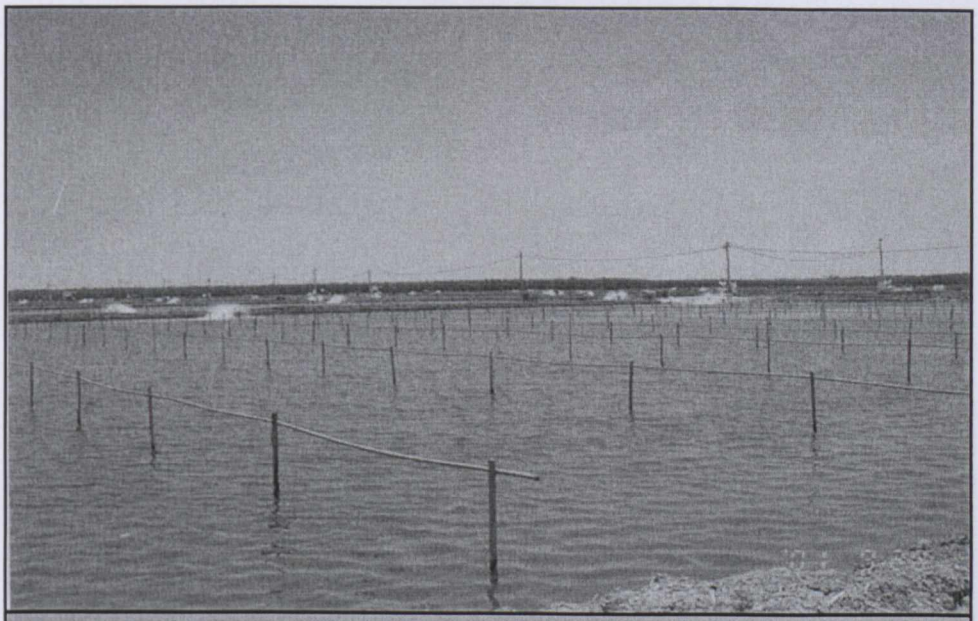
POND CONCTRUCTION S

POND IS READY FOR THE FARMING PROCESS

SHRIMP AQUACULTURE PONDS

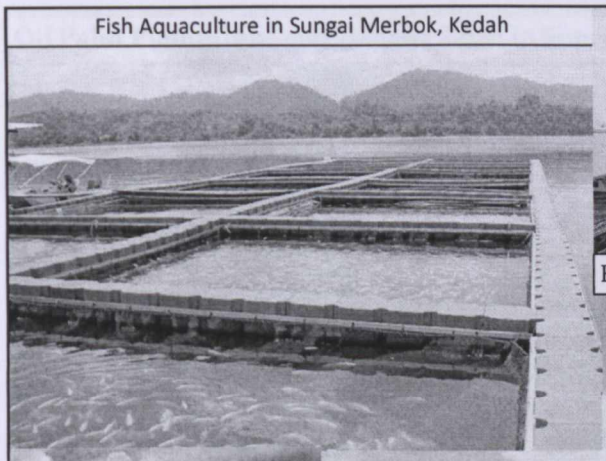
WATER PUMP

WATER RETENTION POND

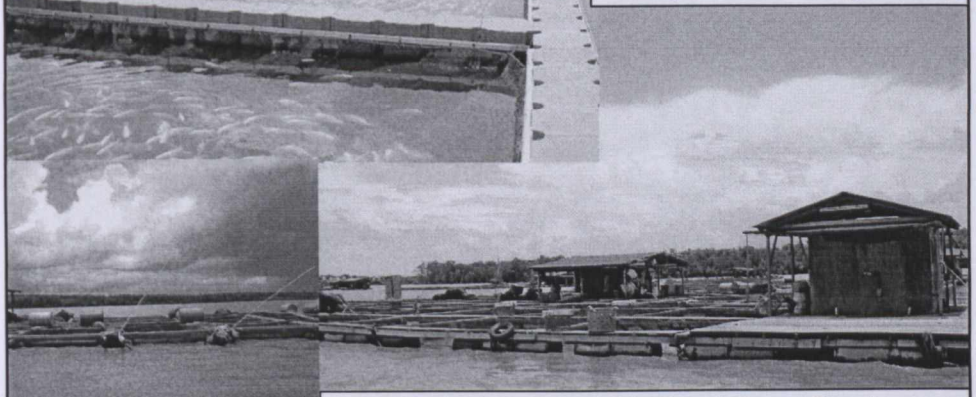


PONDS CONTINUES ONE AND ANOTHER....

Fish Aquaculture in Sungai Merbok, Kedah



Fish Aquaculture in Sungai Pahang



Fish Aquaculture in Tg. Dawai, Sungai Petani

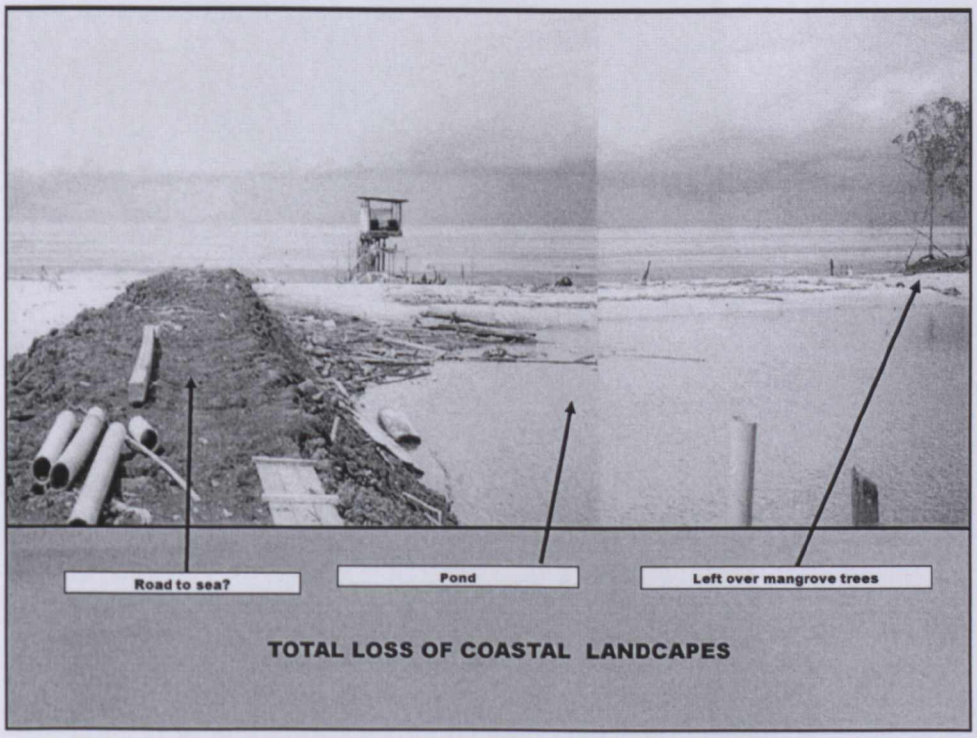
Typical Coastal Scenario in Malaysia

Oil Palm Plantations and Banana Farm in Sungai Tengkorak Kuala Selangor

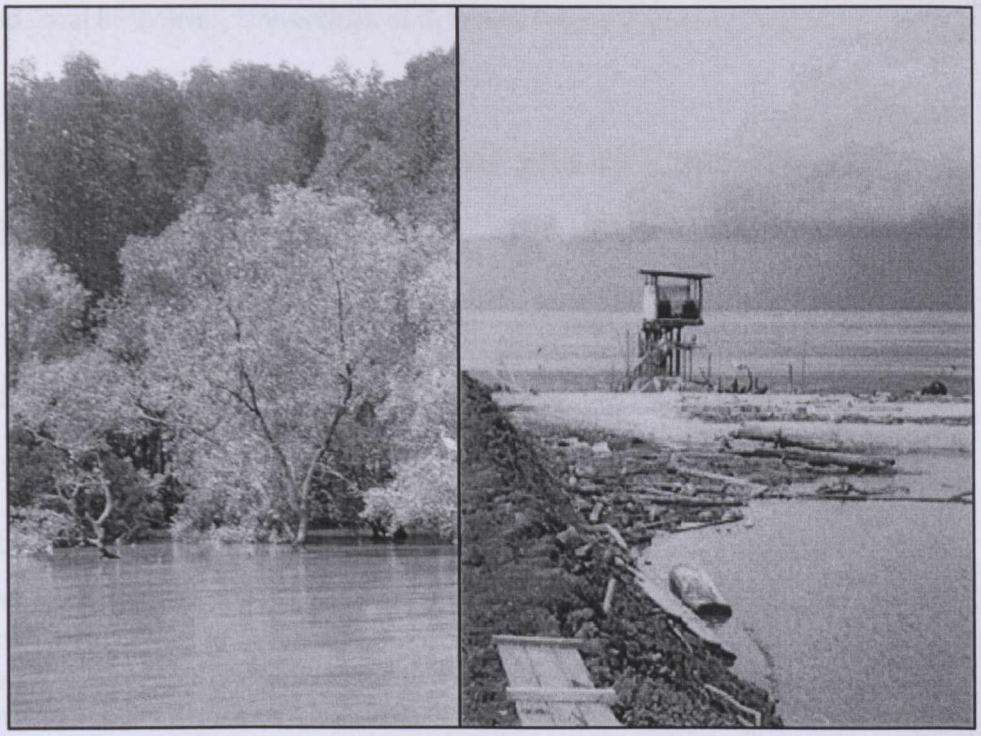
Changes in landscape

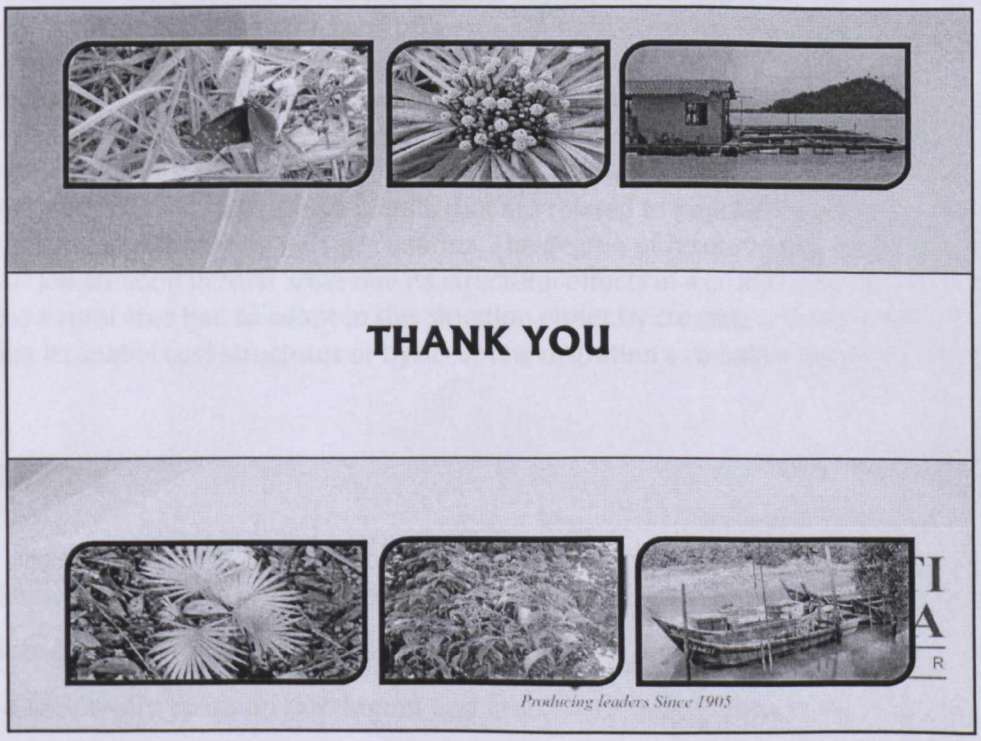
COASTAL EROSION AND COCONUT TRUNKS USED AS BUND TO PROTECT THE PONDS

COASTAL EROSION AND COCONUT TRUNKS
USED AS BUND TO PROTECT THE PONDS



TOTAL LOSS OF COASTAL LANDCAPES

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