

A COUNTRY REPORT THE IMPACT OF AFTA ON MALAYSIAN ECONOMY AND SMALL SCALE PRODUCERS



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MALAYSIA

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THE IMPACT OF AFTA ON MALAYSIAN ECONOMY AND SMALL SCALE PRODUCERS

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Executive Summary

The ASEAN Free Trade Area is oriented towards greater trade liberalization and integration of the regional economy. It is envisaged that by 2015 there will be zero tariffs on all intra-ASEAN trade and single market for goods, services and investments by 2020.

To assess the impacts (both positive and negative effects) of AFTA from the perspective of small men and women farmers in the rice sector in Malaysia. This study was also carried out to provide recommendations to address and mitigate its negative impact while enhancing its positive impact on the rice sector and to promote fair trade in the South East Asian region.

Agreement on the Common Effective Preferential Tariff (CEPT) Scheme for the ASEAN Free Trade Area (AFTA): 10 years implementation time frame starting on January 1, 2000; phasing in products the Temporary Exclusion List (TEL) in Five equal installments beginning on January 1, 2003 and completing on January 1, 2007 and ending at the tariff rates of 0%-5% by January 1, 2010; phasing in agriculture products which are temporarily excluded on January 1, 2004 and completing on January 1, 2010 at 0%-5%; phasing in sensitive agriculture products beginning from January 1, 2008 but not later than January 1, 2010 and ending on January 1, 2017 at rate 0%-5%; maximizing the number of its tariff lines with tariffs between 0-5% by 2007 and expand the number of tariff lines in the 0% category by 2010; and submitting the various products lists for the CEPT scheme to ASEAN by June 30, 1999.

ASEAN framework Agreement on Services: according unconditionally from the date of accession to the Agreement to services and service suppliers of any other ASEAN Member State treatment no less favorable than that it accords to like services and service suppliers of any other country, exceptions to the above could be given up to the year 2005 provided the measures favoring certain countries have been in existence before the accession.

Framework Agreement on the ASEAN Investment Area: having up to five years after its accession to the Agreement to maintain existing measures that are inconsistent with the Agreement with regard to opening up of industries and according to nation treatment to ASEAN investors. Phasing out all items on the TEL by no later than 2010 for ASEAN investors.

Malaysia and AFTA

The Malaysian economy has experienced significant structural changes since the last four and half decades. Agriculture was the main source of growth in the early phase of development. The country has since moved rapidly away from agriculture towards manufacturing and is presently leaning towards a service centered knowledge based economy. Since independence in 1957, Malaysia has moved from an agriculture-centered economy to a more diversified and export oriented industrial economy. At present, agriculture is the third important economic sector after manufacturing and services sectors.

The fisheries sector continues to play an important role in providing fish as a source of food and protein. In 2001, it contributed about 1.54% to the GDP and provided direct employment to 84,496 fishermen and 22,108 fish culturists. Over the years, the industry has succeeded in achieving a steady production from its marine inshore fisheries amounting to an average of 1.06 million tons.

The fishing industry is characterized by the co-existence of small-scale fishermen and large-scale commercial operators. The Malaysian fishing industry is dominated by the small-scale fishermen. Small-scale fishermen do most of their fishing close to shore (i.e. five nautical miles from the shore and they operate with boats below 10 gross tons), make little use of specialized skills and are characterized by low productivity, a high incidence of poverty and limited market outlets. The main gears used by these traditional fisher folks are drift/gill nets, hook and line, achovey purse seiners, bag nets, lift nets and portable traps.

Major Research Findings

AT THE MACRO LEVEL

The ASEAN is Malaysia's largest export market. Exports to ASEAN expanded by almost 2.3 times to RM99.0 billion in 2003 from RM42.9 billion in 1994. Intra-regional trade had increased over 1.5 times from US\$105.5 billion in 1994 to US\$159.5 billion in 2002 since the implementation of AFTA in 1993, pointing towards a significant increase in trade within the region. Tariff reduction has resulted in a substantial expansion of intra-ASEAN trade for the Philippines, Singapore, Thailand and Malaysia alone showed a significant increase of 8.6 percent to US\$153.7 billion in 2003 from US\$141.5 billion in 2002, while the first six months of 2003 recorded \$81.7 billion. For the period January – June 2003, intra-ASEAN trade stood at US\$68.3 billion.

The ASEAN member countries are Malaysia's largest trading partners, contributing about 24.6 percent of the country's global trade in 2002. Malaysia is the second largest contributor to intra-ASEAN trade, after Singapore, accounting for 24.7 percent of the total intra-ASEAN trade¹. Malaysia's trade with ASEAN increased 3 times from RM57.9 billion in 1993 to RM173.7 billion in 2000, although there was a decrease by 17.7 percent (RM 147.6 billion) in 2001 as a result of global trade slow-down.

AT THE MICRO LEVEL

Majority of rice farmers are owner cultivators of their rice plots. Although, the average land size cultivated is 1.64 hectare but majority of farmers tills 0.5 – 1.49 ha. Majority of rice farmers are dependent on the agriculture sector to feed and clothe themselves and their families. Although the net income of majority individual farmers fall into an income bracket of USD 51 – 150, however 36.7% of farmers earn an income of between USD 51 – 100, below the poverty line.

Majority of rice farmers are unaware on whether their harvest is exported. Natural disasters/calamity is biggest problem farmers faced, followed by high production expenses. Natural disasters inadvertently cause rice fields to face water problems. High input costs such as pesticides and fertilizers contribute to the high expenditure in rice production. To overcome these problems, the farmers recommended that prices of input should be controlled, domestic subsidies should be increased, paddy rice should be guaranteed and infrastructure facilities should be improvised or upgraded.

Majority of rice farmers are unaware of AFTA and those who are aware of it heard it from the television, radio and fellow farmers while a few read it in the newspapers. Nevertheless, they have no idea the implications AFTA has on them as rice producers in this country.

Major Research Findings

Majority of the fisher folks are in the age group of 31 – 45 years of age and most of them possess primary education. Most of fisher folks interviewed own outboard powered boats of less than ten tons. On an average, the size of vessel owned by these fisher folks is one ton. The other fishing equipment that is mostly acquired by the majority of respondents is drift/gill nets. Since, the earning capacity of an individual fisher folk is insufficient to sustain neither himself nor his family, thus fisher folk/s tend to depend on other household members, i.e. wife and older children to increase the household income. These members of the family work in factories, perform tailoring activities and also, make and sell delicacies. Nevertheless, in spite of the additional sources of income from other household members, yet 1.8% of fisher folks' households still fall into the low-income bracket.

Decreased in catch due to dwindling fishery resources, indebtedness and illegal use of trawl nets near the bay area are the three top major problems faced by the fisher folks. The common problems faced by these fisher folks, other than indebtedness are high operation cost and no subsidy are provided for fishing activities. The recommendations cited by the fisher folks to overcome these problems are: provision of domestic subsidies, government should enforce stricter regulation and enforcement in controlling illegal fishing activities, conservation and protection of the coastal resources should be emphasized, and price should be set for selling fishes. Majority of fisher folks are unaware of AFTA. Those who are aware of it heard it from the television and radio and a few read it in the newspapers. Nevertheless, they have no idea the implications AFTA has on them as fisher folks.

Recommendations

- To enhance the growth of the agriculture sector mainly the rice industry in Malaysia, the government should find ways to assist small-scale farmers, as they constitute a significant proportion of the Malaysian rice growers.
- Typically, adverse price movements or new policies directly affect small-scale farmers. Instead of focusing on modernizing the paddy production field via promoting large-scale mixed farming, encouraging the use of modern technology and management or forcing these farmers to partake in commercial and agribusiness undertakings in the name of trade liberalization or globalization, the government should first concentrate on the fundamental needs of these farmers.
- The State should not be signatories to trade agreements that compromise the rights and livelihood of small-scale farmers.
- Policymakers should acknowledge and include small-scale fisher folks in their policies by granting them rights as resource users as most of them depend on the trade as their main means of livelihood.
- There is no “one-size fits all” management approach suitable to all nations and fish stocks. Nevertheless, strategies such as improving licensing and monitoring regimes, developing refined fishing gears, establishing marine protected areas that act as refuges for recovery of fish stocks, managing river basins as integrated units with water allocation to sustain river flows and the natural ecosystem functions and processes could clearly contribute to sustainable fishing practices.

- Development in coastal areas should be carried with care and proper planning without harming the fishery resources of this country, i.e. mangroves swamps and forests. Mangroves have been proven to act as natural buffers between the sea and coast and as a breakwater to check coastal erosion by waves. Nevertheless faulty economic policies have hastened their disappearance. Neo-liberal economic policies have pushed economic growth at the expense of human life.

General Conclusion

At the Macro level, Malaysia has benefited from AFTA as Intra ASEAN and Foreign Direct Investment (FDI) from ASEAN into Malaysia have increased tremendously. Nevertheless, from the view of small farmers and fisher folks, they believe that in order to survive in the era of globalization, they need continuous support from the government and trade policies should favor them.

Chapter 1

Introduction

Rationale of the study

The ASEAN Free Trade Area is oriented towards greater trade liberalisation and integration of the regional economy. It is envisaged that by 2015 there will be zero tariffs on all intra-ASEAN trade and single market for goods, services and investments by 2020.

ASEAN member countries signed an ambitious accord to establish an ASEAN Economic Community by 2020, one similar to that of the European Union. The agreement, called the Bali Concord II, was signed during the ninth ASEAN Heads of Government Summit in October 2003 in Bali, Indonesia. It aims to create a community in Southeast Asia based on three pillars: ASEAN Economic Community (AEC), ASEAN Security Community (ASC) and the ASEAN Socio-Cultural Community (ASCC). Underlying the ASEAN Community strategy is the integration of ASEAN's complementarily and enhancing its economic competitiveness.

The ultimate goal of the ASEAN Economic Community (AEC) is to create a competitive region with a free flow of investment, goods, services, and skilled labour coupled with a freer flow of capital, stable and equitable economic development, and reduced poverty and socio-economic disparities by the year 2020.

The ASEAN Economic Community is perceived as a logical extension of ASEAN's efforts towards full economic and business integration. An action plan has been outlined indicating the various steps towards full economic and business integration although the details of the security and socio-cultural cooperation have yet to be finalized.¹ Broadly, the AEC envisages eliminating tariff and non-tariff barriers, standardising customs procedures, gradually reducing capital controls and abolishing visas in the region

The formation of an ASEAN Economic Community is perceived as a logical step up the economic integration ladder in the region. Central to the idea of the Economic Community is the establishment of ASEAN as a single market and production base providing opportunities for business complementation and enhancing ASEAN into a stronger segment of the global supply chain.

ASEAN is Malaysia's largest export market. Exports to ASEAN expanded 2.3 times to RM99 billion in 2003 from RM42.9 billion in 1994. Intra-regional trade had increased over 1.5 times from US\$105.5 billion in 1994 to US\$159.5 billion in 2002 since the implementation of AFTA in 1993, pointing towards a significant increase in trade within the region. Tariff reduction has resulted in a substantial expansion of intra-ASEAN trade. In fact, intra-ASEAN trade between the Philippines, Singapore, Thailand and Malaysia alone increased by 8.6 per cent to US\$153.7 billion in 2003 from US\$141.5 billion in

¹ According to the action plan for AEC, ASEAN nations have identified 11 priority sectors for integration - wood-based products, automotive, rubber-based products, textiles, apparel, agro-based products, fisheries, electronics, e-ASEAN, healthcare, and air travel and tourism.

2002, while the first six months of 2003 recorded \$81.7 billion.² For the period from January to June 2003, intra-ASEAN trade stood at US\$68.3 billion.

The ASEAN member countries are Malaysia's largest trading partners, contributing about 24.6 per cent of the country's global trade in 2002. Malaysia is the second largest contributor to intra-ASEAN trade, after Singapore, accounting for 24.7 per cent of the total intra-ASEAN trade.³ Malaysia's trade with ASEAN increased three times from RM 57.9 billion in 1993 to RM 173.7 billion in 2000, although there was a decrease by 17.7 per cent (RM 147.6 billion) in 2001 as a result of global trade slow-down.

As an economic community, ASEAN is envisioned as a single market and production base. Central to the regional economic integration is the establishment of AFTA, ASEAN's "collective strategic response to pursue ASEAN goals of stimulating intra- and extra-regional trade, improving the investment climate and enhancing the competitiveness of its member countries."



² Minister of Agriculture and Agro-Industry, Malaysia (2004). Trading Up: What Next For Southeast Asia. World Economic Forum in Seoul, South Korea, June 13-14, 2004. <http://banktani.tripod.com/korea.htm>

³ Malaysia's Trade Performance (1994 - 2003). MITI Media Release, April 12, 2004. <http://www.matrade.gov.my/about-matrade/media/2004/media-032004.htm>

Although originally scheduled to be achieved by 2008, the target of completion has been move forward to Jan 1 2003, then to 2002 for the six original signatories of AFTA, with later signatories given a longer time to adjust to regional free trade. In general, since the inception of AFTA in 1993, the intra- and extra-ASEAN trade has increased, both in imports and the exports, except for 1998 due to the Asian financial crisis. Malaysian exports to both ASEAN and non-ASEAN countries were largely unaffected by the economic crisis and is on an increasing trend since 1993. Malaysia's imports also increased except in 1998. In terms of investments, ASEAN Foreign Direct Investment (FDI) figures were found to be decreasing, reaching a negative figure of disinvestment in 2001. In fact, the scenario mirrors the condition of almost all the countries in the region.

AFTA should also provide flexibilities and protection for vulnerable sectors such as small farmers and women's rights with respect to food security and livelihood.

Objectives of the study

- To study co-operation under AFTA that will affect trade and investments in ASEAN member states.
- To study impact of AFTA on small farmers.
- To gather information for public campaign on the impacts of AFTA on food security
- To campaign for food security and fair trade in collaboration with the SEA Council for Food Security and Fair Trade and its members.

Limitations of the study

- This research convened only small producers in selected commodities (farmers tilling 3 hectares and below)
- Working under time constraint. This project is a collaborative work among different SEACON members. Reports have to be analysed using commonly agreed indicators which may not capture all the specific conditions of the country.
- Difficulty

Chapter 2

Background of Agriculture, Trade and Investments in Malaysia

Malaysia is divided into 2 regions, the western part of the country lies on the Malay Peninsula (Peninsular Malaysia) to the south of Thailand; the eastern part consists of two states, Sabah and Sarawak (East Malaysia), which lie on the northern side of the island of Borneo. Peninsular Malaysia is separated from Indonesia by the Straits of Melaka in the West and from Sabah and Sarawak by the South China Sea in the East. The landscape in both east and west is similar, characterized by high mountains and fast rivers flowing down to coastal plains. Nearly 60% of the country is still covered with natural rainforest, the only clear areas being along rivers, including some larger alluvial plains in the west of the peninsula, and where land has been developed for urban settlement or agriculture. It is hot and humid all year round.



Figure 1: Map of Malaysia⁴

2.1 Macro-economic performance

2.1.1 Review and Analysis of GDP/GNP Performance

Manufacturing and services are leading sectors of the Malaysian economy. The manufacturing sector is estimated to grow by a sturdy 10.5 per cent for 2004. This sector is expected to provide a strong impetus to spur economic growth. The services sector, with the largest GDP share of 57.1 per cent, is envisaged to expand at a faster rate of 6 per cent for 2004.⁵ This is because there is immense scope to further expand the services sector share comparable to the developed economies. This will be driven mainly by higher consumer spending amidst rising disposable income and a record level of tourist arrivals. New growth areas in information and communication technology (ICT), strong

⁴ http://www.lonelyplanet.com/mapshells/south_east_asia/malaysia/malaysia.htm

⁵ Economic Report 2004/2005: Ministry of Finance, Malaysia; September 2004, p.30-31.

expansion in financial services and revival in tourism activities supported growth in the services sector.⁶

Output of the agriculture sector is envisaged to moderate to 2.8 per cent (2003: 5.7 per cent), largely due to slower growth in output of CPO after a strong increase in 2003. However, output of the rubber, livestock and fishing sub-sector expanded to support growth in the agriculture sector. Value added in the mining sector is forecast to grow by 5 per cent (2003: 5.9 per cent), underpinned by higher production of crude oil and natural gas, and spurred by higher demand and prices. Growth in the construction sector will be slightly lower at 0.5 per cent (2003: 1.9 per cent), supported largely by the buoyant residential sub-sector and ongoing infrastructure projects.⁷

Table 1: Gross Domestic Product (GDP) by Sector, 2003 – 2005 (in 1987 prices)⁸

Sectors	Share of GDP (%)		
	2003	2004 [#]	2005 [#]
Agriculture, forestry & fishing*	8.7	8.3	8.1
Mining	7.2	7.1	7.0
Manufacturing	30.8	31.8	32.3
Construction	3.2	3.0	2.9
Services	57.6	57.1	57.0

Source: Department of Statistics Malaysia

Note:

[#] Estimates

* Includes livestock and horticulture

2.1.2 Labour and Employment

The stronger economic growth and rising demand for labour with recovery in private investment activities and better export performance are expected to result in better employment prospects and lower retrenchments. The labour market for 2004 was predicted to remain stable with the unemployment rate marginally declining to 3.5 per cent (2003: 3.6 per cent), below the generally accepted 4 per cent unemployment rate for full employment level. Labour force is expected to grow by 3.4 per cent in 2004 (see Table 2).⁹

⁶ Ibid., p. 11.

⁷ Ibid.

⁸ Ibid.

⁹ Economic Report 2004/2005: Ministry of Finance, Malaysia; September 2004, p.65.

Table 2: Labour Market Indicators

	('000)		Change (%)	
	2003	2004*	2003	2004*
Labour force	10,565.9	10,925.2	3.6	3.4
Employment	10,181.1	10,545.6	3.5	3.6
Unemployment	384.8	379.6	3.6 [#]	3.5 [#]

Source: Economic Planning Unit¹⁰

Note:

* Estimates

Percentage to labour force

The overall labour force participation rate is predicted to increase from 67.3 per cent in 2003 to 68.2 per cent in 2004, mainly due to higher female participation. This is due to ICT development, which enables women to work from home with more flexible hours. The labour force is increasingly characterised by more educated entrants into the job market. Currently, more than 50 per cent of the total labour force has attained secondary school education.¹¹

A larger percentage of the male are in the labour force through out the last decade, with a gradual increase from 85.6 per cent in 1990 to 87.1 per cent in 2003. The female population showed the same gradual increasing pattern, with higher magnitude, from 44.1 per cent in 1990 to 45.7 per cent in 2003. The labour participation rate was increasing slowly even before the implementation of AFTA and the trend continued with AFTA.¹²

The stronger economy and brisk business activities have enhanced employment opportunities. Total employment is expected to increase by 364,500 in 2004. The secondary and tertiary sectors are expected to account for about 36.6 per cent (or 3.8 million) and 49.7 per cent (or 5.24 million) of new jobs created respectively. However, the primary sector comprising agriculture, forestry and fishing and mining is not expected to contribute substantially to employment creation in view of the initiatives to intensify mechanisation in the sector (see Table 3).¹³

¹⁰ Economic Report 2004/2005: Ministry of Finance, Malaysia; September 2004, p.65.

¹¹ Ibid.

¹² <http://www.epu.jpm.my/New%20Folder/M%27sian%20Economy%20In%20Figures%20%2705/chap%202.pdf>

¹³ Economic Report 2004/2005: Ministry of Finance, Malaysia; September 2004, p.71.

Table 3: Employment by Sector

	('000)		Share (%)	
	2003	2004*	2003	2004*
<i>Agriculture, forestry, fishing & livestock</i>	<i>1,402.6</i>	<i>1,400.3</i>	<i>13.8</i>	<i>13.3</i>
Mining & quarrying	42.8	43.4	0.4	0.4
Manufacturing	2,857.8	3064.5	28	29
Construction	731.9	798.2	7.8	7.6
Services	5,086	5,239.2	50	49.7

Source: Economic Planning Unit¹⁴

Note:

* Estimates

More jobs will be available in the major economic activities based on the current economic growth trend, especially in the secondary and tertiary sectors. The services sector shows the most promising sign of more jobs to be available. Within the services sector, ICT and tourism-related industries continue to generate significant growth, in terms of output and foreign exchange earnings. In the ICT industry, the Multimedia Development Corporation (MDC) gained further ground in its endeavor to make the Multimedia Super Corridor (MSC) a global ICT hub. As at end-August 2004, there were 1099 MSC status companies, comprising 768 Malaysian-owned, 302 foreign-owned and 29 joint-venture companies. The number of jobs created increased by 17.3 per cent, from about 19,100 jobs in 2003 to 22,300 jobs in 2004, out of which 88 per cent constitute knowledge workers in software development and programming as well as managerial and technical support in sales, finance and marketing. Currently, there are 65 international world-class companies operating in the MSC.¹⁵

The tourism industry remains a significant contributor to the economy in terms of foreign exchange earnings. In 2003, the industry generated RM21.3 billion from 10.6 million tourists while in 2004, with an estimated 15 million tourist arrivals, revenue is expected to reach RM30 billion. The high tourist arrivals are mainly from ASEAN, followed by China, Japan, United Kingdom and Australia. The sharp increase in the number of tourists from Kuwait, Saudi Arabia and United Arab Emirates by 150 per cent, 120.7 per cent and 121 per cent respectively during the first seven months of 2004, signified the growing potential of the Middle East market.¹⁶

The government's efforts in promoting new sources of growth in health and education tourism have also brought impressive results. A total of 103,000 visitors sought medical treatment and generated RM59 million in revenue in 2003 and about 140,000 health tourists were expected in 2004. A majority of them were from the ASEAN countries,

¹⁴ Ibid.

¹⁵ Cited in Economic Report 2004/2005, Ministry of Finance, Malaysia; September 2004, pp.11-12

¹⁶ Ibid.

especially Indonesia. As for education tourism, there were 31,000 foreign students in private schools and institutions of higher learning in 2003, especially from China and Indonesia. By end-2004, the number of foreign students is expected to reach 43,000.¹⁷

2.1.3 The Poverty Situation

Poverty eradication, equitable distribution of wealth and rural development have been the cornerstones of the nation's social agenda to achieve the overriding objective of national unity. Malaysia has been highly¹⁵ successful in alleviating poverty and sustaining racial harmony. The incidence of poverty stood at 5.1 per cent affecting 267,000 households. Rural poverty was higher at 11.4 per cent, while 2 per cent of the urban population was living below the poverty line. A total of 12,600 urban households were hardcore poor, earning less than RM260 (US\$68.42) per month, which is half of the poverty line income (PLI). In the year 2002, the PLI for Peninsular Malaysia was RM529 (US\$139.2) per household, RM690 (US\$181.58) for Sabah and RM600 (US\$157.89) for Sarawak.¹⁸ Efforts are underway to review and redefine poverty to better reflect the current economic and income conditions, taking into account the different geographical locations and their respective costs of living. The review will enable the government to plan and implement future programmes more effectively for the targeted groups.¹⁹

Amanah Ikhtiar Malaysia (AIM), with more than RM1 billion in funds, plays an instrumental role in the alleviation of poverty through its various micro credit schemes. The rural poor have access to micro credit, without the need for collaterals, for income generating activities as well as for education, housing and installation of basic utilities. As at end-June 2004, these schemes benefited about 554,000 borrowers from the lower income groups through loans amounting to RM1.03 billion. To assist students from poor families, the Trust Fund for Poor Students was established in 2003 with a launching grant of RM200 million. This fund provides assistance to students from families with household income of less than RM500 a month. The financial assistance is to pay miscellaneous school and examination fees and to buy uniforms as well as for counselling and coaching. Apart from government grants, the fund also receives donations from corporations and individuals. As at end-July 2004, a total RM4.8 million has been disbursed, benefiting 3,680 students.²⁰

Various programmes have been implemented for the *Orang Asli* (indigenous people) to improve their earning capacity, welfare and quality of life. The programmes implemented in 2004 include the provision of basic infrastructure and utilities, systematic land development, education and skills training. Until June 2004, the government has spent RM105 million to construct 2,160 kilometres of roads in 720 *Orang Asli* villages while 8,250 houses in 238 villages were provided with electricity at a cost of RM71 million. As at end-2003, the government has built 11,480 houses under the Skim Pembangunan Kesejahteraan Rakyat at a cost of RM46.7 million. Another RM97 million was expended to supply piped water to 327 villages and gravity water to 364 villages, improving further the quality of life of the *Orang Asli*.²¹

¹⁷ Ibid.

¹⁸ Malaysia: Achieving The Millennium Development Goals. Publication by the United Nations Country Team, Malaysia, 2005, p. 36. <http://www.epu.jpm.my/New%20Folder/publication/UNDP1.pdf>

¹⁹ Economic Report 2004/2005, Ministry of Finance, Malaysia; September 2004, p.18

²⁰ Ibid., pp. 18-19.

²¹ Ibid.

The United Nations Development Programme (UNDP), focusing on the Millennium Development Goals' targets, has also carried out much collaboration with the Malaysian government, guided by the agreed Country Programme Outline 2003-2007. The Country Programmes focus on enhancing human development and improving environmental management. In the effort to eradicate poverty, UNDP projects in Malaysia centred on human development. Among others, UNDP has four programmes and projects in reducing poverty. They are:²²

i) **Strengthening Capacity in Poverty Monitoring, Policy Formulation and Evaluation.** This programme is being carried out in collaboration with the Economic Planning Unit of the Prime Minister's Department to assist and to strengthen the capacity of the Economic Planning Unit. The objectives are to better monitor trends and patterns in poverty by defining a new poverty threshold; to improve poverty policy formulation by broadening the range and details of poverty measures in the Ninth Malaysia Plan, and training the government staff and other stakeholders in the construction, analysis and interpretation of poverty measures.

ii) **A National Strategic Framework for Bridging the Digital Divide.** The objective of this programme is to prepare a comprehensive national framework in bridging the digital divide (BDD) for consideration by the Malaysian government. Through the project, an assessment will be made of the current state of the spatial digital divide in Malaysia, current policies and strategies for BDD, the impact of existing BDD programmes and projects on target groups, and benchmarks established on international best practices in BDD. The result of this study will serve as inputs to the Economic Planning Unit and relevant agencies in the formulation of policies, strategies and programmes for the Ninth Malaysia Plan to narrow the digital divide gap.

iii) **Gender Budget Analysis.** This pilot project is aimed at exploring the potential of gender sensitive budget work in the national budgeting system. Training and capacity building forms the core element of the project. In July 2003, training sessions were conducted for key officers from all pilot ministries and agencies. They are from the Ministry of Education, Ministry of Higher Education, Ministry of Health, Ministry of Human Resources, and the Ministry of Rural and Regional Development, as well as from the central agencies made up of the Economic Planning Unit of the Prime Minister's Department, the Ministry of Finance and officers from the National Institute of Public Administration (INTAN).

iv) **Human Resource Development Master Plan.** This project assists the Malaysian government to formulate the Human Resource Development Master Plan that identifies and addresses strategic human resource development (HRD) issues in relation to future economic growth. A responsive and dynamic HRD action plan will be developed to meet the economic challenges and to produce a world-class workforce to enhance Malaysia's competitiveness. The final output will be a HRD master plan to leapfrog Malaysia's transition into a knowledge-based economy.

²²UNDP in Malaysia, United Nations Development Programme, http://www.undp.org.my/undp_in_malaysia/index.asp

2.2 Agriculture

2.2.1 Land and water resources

The Malaysian economy has experienced significant structural changes in the last four and a half decades. Agriculture was the main source of growth in the early phase of development. The country has since moved rapidly away from agriculture towards manufacturing and is currently leaning towards a service centred knowledge-based economy. Since independence in 1957, Malaysia has moved from agriculture centred activities to a more diversified and export-oriented industrial economy. Agriculture is currently behind manufacturing and services.

The agricultural sector's contribution to Gross Domestic Product declined by about 23 per cent in three decades. In 1970, the sector contributed about 33.6 per cent to GDP and it dropped to 10.5 per cent in 2000. There was also considerable diversification in agriculture during this period with greater emphasis on several commercial crops including oil palm, cocoa and pepper.

The agriculture sector is characterised by a dualistic system of plantations (estate holdings of at least 40 hectares) and smallholdings. The plantations, which specialise in the cultivation of oil palm and rubber, are owned either by local or foreign companies with relatively higher productivity. Most local plantation companies are owned by government linked companies. Systematic and good farm management practices have been cited as the key factors in higher productivity and profitability of the plantation sector.

At present, Malaysia is the world's largest producer and exporter of palm oil, accounting for one-half of the world's output. Palm oil production increased steadily from the 1970s. In 2003, oil palm was the main contributor to the GDP from the agriculture sector. It contributed about 35 per cent of the agriculture sector contribution to GDP. Malaysia is also a significant producer of natural rubber, cocoa and tropical timber although their outputs declined in the 1990s.²³

The last two decades have seen agricultural land being converted for residential, industrial or commercial purposes. Specifically, rubber and oil palm plantations have been converted to townships and office complexes. In Malaysia, paddy is produced mainly by small farmers with an average farm size of about 1.06 hectares.

The smallholdings, on the other hand, are family owned and operated by small agrarian communities. The smallholdings are relatively small and uneconomical and characterised by traditional farming practices, low income level and high incidence of poverty. For example, about 70 per cent of the rice farmers in the country owned farms less than two hectares (five acres), contributing to farm income of about RM300-350 per acre per month.²⁴

²³ Ng, Tak Wa 'Current Situation of Agriculture In Malaysia', Third Country Training On Agricultural Finance, Hanoi, Vietnam, Feb 15-28, 2004.

²⁴Othman, Pazim Fadzimh. (2001). *Malaysia Country Report: Agrarian Reforms and Agricultural Productivity*. Report of the APO Study Meeting on Agrarian Reforms and Agricultural Productivity, Sri Lanka, May 28 – June 2, 2001. Edited by M. Ghaffar Chaudhry, Joint Director, Pakistan Institute of Development Economics, Islamabad, Pakistan. <http://www.google.com.my/search?q=cache:sepe2UyiVdsJ:www.apo-tokyo.org/00ebooks/13.AgrarianReforms/10.Othman.AgRePro.pdf+Rice+farming+in+Malaysia+&hl=en>

2.2.2 Agricultural population, employment and wages

Although the contribution of the agriculture sector has been reduced, its importance to the national economy cannot be underestimated. Specifically, the sector is important in terms of food security and reduction of the country's import bill. It also provides employment and raw materials for industrial development. The statistics for employment and labour by sectors for 1999-2003 indicate that the agriculture sector is the second largest employer in the country after manufacturing. It was estimated that about 1.4 million people were directly employed in the sector, about 10 per cent of the total labour force in the period.²⁵ It was anticipated that employment in the agricultural sector would decrease from 18.7 per cent in 1995 to 12 per cent in 2005.²⁶

2.2.3 Agricultural production, consumption and trade

The agricultural sector is being reprioritised as the third engine of growth as a result of Malaysia being highly dependent on food imports. Moreover, the government believes by redeveloping the agricultural sector, it would enhance the income of farmers and reduce the poverty in the rural sector. The country's food import bill has continued to increase from RM4.6 billion in 1990 to RM10 billion in 1997. It has further increased to RM25.8 billion in 2003, a thumping 26.2 billion increase in a 13 year period.

The Eight Malaysia Plan indicates that the agriculture sector recorded productivity gains in several sub-sectors such as paddy, tobacco, vegetables, and poultry. Productivity gains were achieved through the application of labour saving technologies, better farming practices in large-scale commercial production. The value-added per worker in the sector improved by 2.4 per cent annually, from about RM11,500 in 1995 to RM 12, 900 in 2000.²⁷

²⁵ The labour force engaged in the agricultural sector has further declined in the last decade. In 1995 about 16.8 per cent of the total labour force was involved in the sector. In 2000, the number of workers in the sector dropped to about 13 per cent (Department of Statistics, Malaysia).

²⁶ Malaysia (2001). *Eight Malaysia Plan 2001-2005*, Kuala Lumpur: Percetakn Nasional Malaysia Berhad, p.119.

²⁷ Eight Malaysia Plan, p. 205.

http://www.google.com.my/search?q=cache:B0_iMxbPmzoJ:banktani.tripod.com/agriculture.PPT+national+agriculture+policy+-+malaysia&hl=en

2.2.4 Cropping and production: Production expenses and productivity

Paddy production increased from 1.7 million tonnes in 1985 to 2.1 million tonnes in 1995. The average yield per hectare per season increased from 2.7 tonnes in 1985 to 3.2 tonnes in 1995. Paddy production increased from 2.1 million tonnes in 1995 to about 2.2 million tonnes in 2002, registering 1 per cent growth per annum.²⁸ However, paddy production is expected to decline by 3.3 per cent, due to lower paddy yield from 3 tonnes per hectare in 2003 to 2.8 tonnes per hectare in 2004. The emergence of the weedy paddy or commonly known as *padi angin* was attributable to lower paddy yield. Measures undertaken to increase paddy yield per hectare include development of large scale, commercial paddy farms, enhancing private sector involvement and entrepreneur development.²⁹

The domestic rice self-sufficiency production target was set at 65 per cent under the Eight Malaysia Plan.

2.2.5 Paddy price and agricultural marketing system

BERNAS plays an important role in the national paddy and rice industry and also assume all social and commercial obligations. These include conserving, maintaining and managing the national paddy/ rice stockpile, representing the government on the management and disbursement of subsidies to paddy farmers, managing the Bumiputera Rice Miller Scheme, purchasing paddy from farmers at guaranteed minimum price and acting as the buyer of last resort. Although the floor price for paddy set by BERNAS has helped to secure the farmers' income, it has not been successful in eradicating incidence of poverty, especially in the 1970s.³⁰

BERNAS has been appointed the sole importer of rice into Malaysia till 2010, with the option for renewal for another five years. The BERNAS Group operates 36 mills and 49 warehouses and employs more than 4,000 people.

The group's rice is marketed by its seven subsidiaries: Yew Heng Leong (YHL), Jasmine Food Corporation, Serbawangi, Era Bayam Kota, Fajar Jerlun, Dayabest and Sazarice. Among the brands distributed by BERNAS are Jasmine, Saga, Sunwhite, Sakura and Jati. The BERNAS Group handles about 700,000 to 900,000 metric tonnes of rice every year, representing 40 to 50 per cent of the total rice supply in Malaysia.³¹

As a corporate body, BERNAS has a good track record since 1992. It has been successful especially in its business expansion to Africa, Middle East and Southeast Asia nations.³² However, BERNAS has been facing the problem of rice smuggling throughout its operations. It is partly due to the inefficient enforcement by the authorities and alleged corruption within the BERNAS workforce.

²⁸ *Ibid.*, p. 212.

²⁹ Economic Report 2004/2005: Ministry of Finance, Malaysia, September 2004, p. 30-31.

³⁰ McIntyre, Andrew (2001). Rethinking the politics of Agricultural Policy Making: The Importance of Institutions. The Evolving Roles of State, Private, and Local Actors in Asian Rural Development.

³¹ Mohd Khussairi Harumaini, Abdul Rahman Mohd Nasri, Wang Yung Shyan and Harrun Anuar (2002). Issues and Problems in the Distribution Network of Rice in Peninsular Malaysia. Feeding Asian Cities Regional Seminar, Nov 10, 2002.

³² <http://www.bernas.com.my/history.htm>

2.2.6 Capital for agriculture

Malaysia is currently embarking on programmes to commercialise agriculture further and transform it into a more dynamic sector. Towards this end, the agricultural sector received a thumping 33 per cent increase in government budget allocation for the fiscal year 2005. The government will invest RM1.5 billion in agricultural projects, especially for the betterment of smallholders. It is envisaged that this fund will be used to modernise the smallholding sector through more efficient management and application of appropriate technologies.

2.2.7 Major government agricultural policies and programmes

Rice cultivation has always been accorded special emphasis in the context of national development. This is principally due to food security and socio-economic reasons. As a staple, rice holds a special strategic position in society. Policy intervention in the paddy and rice industry is mainly to address these two core issues. Malaysia's New Economic Policy 1970-1990 (NEP) sought to alleviate poverty and restructure society, i.e. to end the association of economic function with race. In particular, it was designed to enhance the economic standing of ethnic Malays who constitute the majority of small farmers. To this end, massive public investments in infrastructure and support services were made and various price/income support measures were provided to sustain a reasonable level of profitability or income to rice farmers.

The rice industry is highly protected through a web of policy interventions including fertiliser subsidies and a direct price support scheme. Specifically, the government sets a floor price for paddy in addition to price and fertiliser subsidies. As of January 1998, the floor price for Grade I paddy was RM555.00 per ton and Grade II paddy RM517.00 per ton. The price subsidy is set at RM248.10 per ton irrespective of paddy grade. Finally, fertiliser subsidy at 300 kg per hectare is available to farmers with farm holdings of less than 2.43 hectares.³³ Others have suggested that the majority of rice farmers work on an average farm size of 1ha. With an average income of RM1,147 per hectare per season, the monthly income amounts to be RM191, which is below the poverty line.³⁴ In spite of being protected, there is still a lot of smuggling activities which affect the income of small producers. This is because traders are not willing to buy the local rice since the smuggled rice is cheaper. Thus, the Malaysian rice producers are already facing competition because the smuggling activities take place every year during the harvest season.

³³Mohd Khusairi Harumaini et al., 2002

³⁴Mohd Khusairi Harumaini et al., 2002

Malaysia continues to be dependent on rice imports to meet local consumption. Currently, the country is only 72 per cent self-sufficient in rice. The National Agricultural Policies (NAP) guide agricultural policies and development of the industry. These policies have been constantly reviewed to respond to changing needs and challenges in the local and global environment. At the heart of these policies is the need to maintain a growth trajectory while integrates domestic concerns relating to the agriculture sector. These include food security, rural socio-economic development, eradication of poverty and sectoral balance. The government has formulated three such national policies:

- NAP1 (1984 – 1991)
- NAP2 (1992 – 2010)
- NAP3 (1998 – 2010)

The recurring themes in all the NAPs are a) expanding and self sufficiency in food production; b) greater role of the private sector and creation of a business environment; c) increasing income for stakeholders in the sector, especially the vulnerable groups namely, small farmers and fishermen; d) enhance productivity, efficiency and competitiveness in the agricultural sector; e) marketing reform; f) agro-based industrial development.

The objective of NAP1 was to maximise income through the effective and efficient use of agriculture resources. The policy also pursued expansion in the export of cash crops such as oil palm and cocoa. The NAP1 period saw the government involved in replanting, rehabilitating and land consolidation aimed at increasing productivity and enlarging fragmented and uneconomic holdings. In general, NAP1 was effective in guiding resource allocation, cropping patterns and output growth within the sector.

However, NAP1 failed to look into the increasing income and productivity disparity between the agriculture sector and the rest of the economy, especially the manufacturing sector.³⁵ NAP1 envisaged that Malaysia achieve 80 to 85 per cent self-sufficiency in rice production, a target that was not achieved.³⁶

NAP2 attempted to address the new developments, issues and challenges. Greater emphasis was given to address issues of productivity, efficiency and competitiveness in the context of sustainable development and linkages with other sectors of the economy.

³⁵ 'Integrating Environmental Considerations Into Economic Policy-Making Processes: Institutional Arrangement and Mechanisms at the Sectoral Level in Agriculture in Malaysia. <http://www.unescap.org/drrpad/publication/integra/volume3/malaysia/3my000ct.htm>

³⁶ See Yee Ai (1999). 'A Growing Concern Cultivating Better Yields', *The Star*, Jan 5, 1999.

The policy also outlined both medium and long-term strategies for expanding food production, greater role of the private sector, marketing reform and accelerated agro-based industrial development. Efforts were intensified to further liberalise the agricultural sector. The National Forestry Policy was also revised in 1992 to place greater emphasis on the importance of maintaining biodiversity, conservation and sustainable management of forests. Specifically, the NAP2 period saw the establishment of the World Trade Organisation and trade liberalisation and the opening of the agricultural sector. During this period, the country's import bill amounted to RM10 billion. Self-sufficiency targets were proposed for selected food items. Under NAP2, the rice self-sufficiency level was adjusted to 65 per cent. It was suggested that rice production will improve through the formation of mini-estates and group farming. The strategies identified included expanding food production, marketing reform and accelerated agro-based industrial development. The policy identified an important role for the private sector, i.e. to transform agriculture into a competitive and efficient sector. The government was prepared to provide incentives to attract investment.

However, when formulating NAP2, the government did not anticipate such rapid and sudden changes in the domestic and international economy. Therefore it did not adequately address the new issues and challenges in the agricultural and forestry sectors. Furthermore, the NAP2 lacked focus on priority areas of agricultural development and a plan of action and mechanisms for its implementation. Consequently, there was a need to formulate new policies and strategies to strengthen the sector's robustness to changes in external factors and enhance its global competitiveness as well as to ensure continuous growth of Malaysian agriculture.³⁷

This led to NAP3. Its aims are to a) increase food production and reduce trade deficit in food; b) enhance competitiveness and productivity; c) increase income through optimal resource allocation. The NAP3's strategy is to promote private sector participation and a business environment to attract private capital. The government anticipates that the private sector will bring in capital, entrepreneurial skills, and access to technology and marketing innovations to spearhead the industry.

NAP3 will focus on productivity, efficiency and competitiveness in order to reduce dependency on imports.³⁸ NAP3's core objective is to enhance agriculture's economic viability in line with the government's efforts to liberalise the industry in the long term. Furthermore, the NAP3 provides a distinct and critical role to the private sector in achieving its policy aims. The government envisages a "greater private sector participation in critical areas of the food production, post-harvest handling, processing, distribution and marketing to further enhance efficiency and productivity, as well as to diversify the structure of production in order to deepen and widen the country's agro-industrial base".³⁹

³⁷ http://agrolink.moa.my/dpn/dpn3/nap_dimension.pdf

³⁸ 'Govt Focusing On Three Thrust Areas To Address Dependency On Imports', Keynote Speech of the Deputy Minister of Agriculture and Agro-based Industries, Datuk Seri Kerk Choo Ting, at the National Food Technology Seminar in Kota Kinabalu on Sept 21, 2004. http://www.bernama.com/bernama/v3/news_business.php?id=93836

³⁹ Md Said, Rahimah, (2000). 'Opportunities in Agriculture' NAP3 – A Comprehensive Approach Towards Agricultural Development in Malaysia. Ministry of Agriculture. Keynote Address at the 8th Annual MANCO Conference on Nov 23-24, 2000. <http://banktani.tripod.com/rahimah.htm>

This is “consistent with the Vision 2020 policy of encouraging the private sector to play the lead role in forging economic growth with the public sector playing a reduced but supportive role to private entrepreneurs”. Private sector investment is perceived as the key driving force in realising the NAP3’s aims. The NAP3 stipulates that the private sector will provide support services to the rice industry besides investing in large scale paddy production. The support services include input supply, mechanisation services, marketing and production of high quality seeds.⁴⁰

The NAP3 embodies a commercial approach to agricultural development. Underlying this perspective is the notion that the private sector is capable of enhancing productivity and competitiveness to ensure food security in the country and to penetrate the global market. It is believed that the sector’s investments, mechanisation, use of latest technology and marketing infrastructure will resolve the agricultural sector’s problem such as the lack of land, labour and competition. Furthermore, it will overcome poverty among the farmers and reduce high cost of food imports by increasing exports.

In order to entice the private sector to invest in the agricultural sector, the Agriculture Ministry and MIDA are providing tax incentives for the agricultural sector and agro-based industry under the 1986 Investment Promotion Act and the 1967 Income Tax Act. Companies investing in activities or products encouraged by the government are eligible to apply for the Pioneer Status Incentive and Investment Tax Allowance.⁴¹ The government has also set up the Public-Private Sector Co-ordinating Council, chaired by the Prime Minister, to steer, guide and review NAP3’s implementation.

NAP3 opens the door for a significant involvement of private capital. An enabling environment is being created for the private sector to transform the industry to be regionally competitive while providing for food sufficiency in the country. The government plans to review the Rice Order (Rice and Grade Control) 1992 to deregulate the market. Thus, rice prices are likely to be determined by supply and demand forces. NAP3 suggests that the fertiliser and paddy price support programmes will be reviewed in line with the country’s international obligations. The government, consistent with the dictates of the NAP3, also plans to transform the fishing industry into a commercial activity with particular emphasis on deep-sea fishing and aquaculture. It is suggested that aquaculture will be aggressively developed to supplement production from marine fisheries, as well as to cater for exports. Two new strategic approaches are adopted. The first is the agro-forestry approach aimed at addressing the problem of decreasing resources including land and raw material availability. In this approach, agriculture and forestry are viewed as mutually compatible and complementary, therefore providing a scope for joint development. The integration of agriculture and forestry is also aimed to create a larger productive base for both sectors. This approach will allow agro-forestry enterprise mix, production of both agriculture and forestry products on the same land, support various symbiotic relationships and provide avenues for early and continuous returns.⁴²

40 Third National Agricultural Policy (1998-2010) document, p. 52.

41 Abd Ghani, Cik Rashidah, (2004). ‘Advisory Panel To Boost The Agricultural Sector’, Sept 29, 2004. <http://www.bernama.com/bernama/v3/news.php?id=95560>

42 The New Dimensions in the Third National Agricultural Policy (1998-2010), Department of Fisheries Sabah, www.fishdept.sabah.gov.my/download/Dimensions.PDF, 2000, p. 2.

The second is the product based approach adopted to reinforce and complement the cluster-based, agro-industrial development as identified in the Second Industrial Master Plan 1996-2005 by strengthening both inter and intra-sectoral linkages. The product-based approach emphasises in satisfying the specific needs of niche markets and consumers worldwide who are increasingly demanding specific products. In this approach, key products and markets are identified based on demand, preferences and potential. This approach will help to identify opportunities for market expansion, encourage the production of high quality and value produce, strengthen the strategic role of upstream agricultural and forestry industries, encourage vertical integration and the internalisation of value adding activities and widen the scope of agricultural and forestry development.⁴³

Among other notable focus of NAP3 is the development of biotechnology products, floricultural products, utilisation of oil palm biomass, natural chemicals from biological resources and aquarium fish. Seeking to enhance agricultural export, NAP3 also formulated the strategy to promote Malaysia as the international *halal* food hub. Capacity for inspection, monitoring, standardisation and certification of Malaysian *Halal* Standard will be strengthened and promoted internationally.⁴⁴

There is a growing demand for organic produce in the local and international markets. Thus, NAP3 has identified organic agriculture as a niche market opportunity, particularly for fruits and vegetables. The government is encouraging small producers to venture into organic farming as a part of strategy to raise their incomes, overcome problems of chemical residue in food production, protect the environment, reduce food imports as well as enhance the export of high quality safe food.

The policy approach enables a more efficient formulation of policy thrusts to meet the challenges facing agricultural development in the country. Complementing this is the agro-forestry approach which enables policy formulation to address resource constraints such as land and labour. These approaches together with the policy thrusts, action plans and the implementing mechanisms should provide the enabling environment to sustain and enhance the growth of the agricultural and forestry sector and become more globally competitive.

2.2.8 Income and poverty situation among small producers

Since 1970, following the adoption of the National Economic Policy (NEP) trusteeship strategy, the eradication of rural poverty has become an explicit objective of rural development policy. It promotes higher incomes and productivity in agriculture which traditionally recorded high incidence of poverty.

⁴³ Ibid.

⁴⁴ Ibid., p. 6.

The highest incidence of poverty was in the rubber smallholding sector (less than 40 hectares). In 1977, there were about 412,600 rubber smallholders, of whom 198,000 or 48.1 per cent were in the poverty bracket. The second largest concentration of people in poverty was the paddy farmers. They lived mostly in the rural area, which needs assistance/aid in order for them to get higher income.⁴⁵

2.2.9 Major problems and concerns

The shrinking areas for rice production override any advantage that might be expected from higher yields.⁴⁶

Farmers produce for wholesalers under consignment. Prices are based on the market price during collection of the produce. It has been suggested that producers were informed of the prices by the wholesaler after the sales had been carried out. The situation had been made worse by poor market information and cheap imported agricultural production.

Small farmers are traditionally associated with poverty in the country. In fact, with the government policy moving towards commercial farming, the economic situation of this group might be more uncertain. The trend towards commercial farming could potentially lead to land and market concentration. Cheaper imports contribute to further vulnerability of the group. Rice imports and illegal trade causes a glut situation in the country, and this situation has an impact on production and income levels.

The transformation of the Malaysian economy has led to a major migration from rural agricultural centres to cities and towns. The exodus is caused by poverty coupled with unemployment in the rural areas. This led to a decrease in the farming population and has prompted the government to expedite farm mechanisation.

Paddy production faces both physical and operational constraints. These include land and water resources, the escalating prices of agricultural inputs including implements, low adoption of technology, importing of foreign rice, high post-harvesting losses and uneconomic land holdings. Another main production constraint is fluctuating yield, with strong indication of a gradual decline over time.

Periodic drought, irregular rainfall, and seasonal monsoon floods are a threat to the rice crop. Malaysia also experiences shortages of irrigation water. Topography also plays a role in overall rice production. The intrusion of coastal seawater into areas below sea level is a continuing problem. Ineffective terracing of upland slopes and inefficient, gravity-fed irrigation systems lead to water deficits. Soil-related constraints include suspected nutrient imbalance and deficiency and low cation exchange capacity. The use of organic materials is limited in favour of the blanket application of chemical fertilisers

⁴⁵ Robiah Lazim, Country Paper (1). Report of the Asian Productivity Organisation Seminar on Rural Life Improvement for Community Development, Japan, April 22 -26, 2002.

⁴⁶ <http://www.bernas.com.my/overview.htm>

Prices of vegetables are being fixed by middlemen to the detriment of small farmers. According to the Consumers Association of Penang, 85 per cent of the fruit and vegetable market is monopolised by middle men. Fruits and vegetables bought at

RM2.50 per kilogramme were sold at RM6 per kg in Penang. Thus, small farmers have no control of prices and are vulnerable vis-à-vis middlemen.⁴⁷

2.2.10 Gender issues in agriculture

During the 1991-1995 period, the agricultural sector took a back seat in the face of expansion in manufacturing and increased educational opportunities for women. The percentage of women employment in the agricultural sector decreased from 16.9 per cent in 1995 to 14.1 per cent in 2000. This is largely due to the rural-to-urban migration of young women since the 1980s in search of better employment opportunities in higher-paying jobs in the professional, technical, administrative and managerial categories (*Eight Malaysia Plan*), and the lack of focus in providing relevant training and information in this area for women.⁴⁸

Though both men and women had the right to use lands according to customary law, the succession started to deny in a part of maternal area after the introduction of the British land system. Moreover, Islamic law on inheritance provides that women can succeed only half of men's succession. In some cases in Sabah and Sarawak, native women lost the land which was protected by customary law with the introduction of land registration.⁴⁹

The government emphasises the need to increase training and programmes for women farmers at all levels as one of the most effective means to develop their skills and encourage their participation in activities related to agriculture as well as providing monetary assistance to establish small-scale agricultural businesses.

The government's implementing agencies play an important role towards this goal, including the Women Farmers Association (Kumpulan Peladang Wanita), Kumpulan Wanita Pekebun Kecil of RISDA, WADIRA of FELCRA. A significant number of women in agriculture is involved in activities such as food processing, handicraft, vegetable farming and small businesses selling household goods. Therefore, the Agriculture Ministry has initiated the Women's Development Group (Kumpulan Pengembangan Wanita) programme to assist women through the provision of financial aid and skills training.⁵⁰

Some of these programmes like the Women's Development Group (KPG) have been successful in their effort to improve the living conditions of women especially in the rural area. Through this programme, 1,364 KPGs has been established throughout the country in 2002 as women community centres for skill learning and to carry out income generating activities.

⁴⁷Anonymous, "CAP: Don't let middlemen fix vege prices", *The Star*, July 31, 2003.

⁴⁸Anonymous, Country Women in Development Profile (Malaysia), Japan International Cooperation Agency: Planning and Evaluation Department, November 2002, p. 14. Cited from "Rakan kongsi, komunikasi dan media dalam pembangunan", University Putra Malaysia, 1996, p. 33.

⁴⁹ *Ibid.*, p.14.

⁵⁰ *Ibid.*

Most KPG members are women and mothers. The income generating activities carried out are mainly agriculture-based, usually producing value-added products from the agriculture produce in the local community. One of KPG's success stories is in Cameron Highlands where the income of 64 per cent of the members have increased to RM1,000 in 2001. The branch is targeting on increasing the number of members with higher income to 80 per cent by the end of 2005. The income from the activities is impressive. Cameron Highland KPG has raked sales totalling RM3,769,863, with most of the contribution coming from service-based activities.

Amanah Ikhtiar Malaysia (AIM) provides micro finance with no requirement of security and interests. Department of Hospitality (DOH), Department of Agriculture (DOA), Food and Agricultural Organisation (FAO), Mountain Area Development Agency (MADA), Federal Land Consolidation and Reclamation Authority (FELCRA) and Community Development Section (KEMAS) provide programmes to support small enterprise. The income generating activity for women is mainly on food production, textiles and tailoring.⁵²

At the national level, the Ministry of Women Affairs was created on Jan 17, 2002. It was renamed Ministry of Women, Family and Community Development in March 2004 to reflect its additional function in promoting the development of the family and community institution. The ministry's objectives are to increase the participation and active role of the women as contributor and beneficiary of the nation's development, protecting women's rights and ensuring equal opportunities for women in social, economic and politics, among others.⁵³

The ministry hosted the Non-Aligned Movement (NAM) Ministerial Meeting on the Advancement of Women in May 2005 to formulate the Putrajaya Declaration, a blueprint for the empowerment of women.⁵⁴ The 50-point Putrajaya Declaration outlines specific areas of concern under nine issues targeting to promote the well being of women.⁵⁵ They are: Women, Poverty and Economic Development; Women in Power and Decision Making; Women and Education; Women and Health; Women, the Media and ICT; Women and Armed Conflict; Violence Against Women; Women and Disaster Situation; and Gender Mainstreaming.

Various non-governmental organisations (NGOs) in Malaysia promote gender mainstreaming and empowerment. The Women's Aid Organisation (WAO) is a prominent women-based NGO formed in 1982. Other than focusing on confronting violence against women, WAO also advocates the eradication of factors that contribute to the inequality and subordination of women through law, policy and institutional reforms. It seeks create an awareness and better understanding among individuals and the relevant

⁵² Anonymous, Country Women in Development Profile (Malaysia), Japan International Cooperation Agency: Planning and Evaluation Department. November 2002, p. 14-15.

⁵³ Ministry of Women, Family and Community Development's website www.kpwkm.gov.my

⁵⁴ "Ministers pledge to improve conditions for women", *The Star*, May 11, 2005.

⁵⁵ "50-point Declaration to empower women further", *Daily Express*, May 11, 2005
<http://www.dailyexpress.com.my/print.cfm?NewsID=34420>

agencies on the issue of violence against women and the underlying inequalities. WAO opened the country's first Women Refuge to provide shelter and aid to battered women.⁵⁶

Sisters in Islam (SIS) is a group of Muslim professional women committed to promoting the rights of women within the framework of Islam. SIS was formed in 1988 and its objectives, among others, are to promote and develop a framework of women's rights in Islam, which takes into consideration women's experiences and realities, to eliminate injustice and discrimination against women by changing practices and values that regard women as inferior to men and, to create public awareness, and reform laws and policies, on issues of equality, justice, freedom, dignity and democracy in Islam. SIS organises many activities to educate women, particularly Muslim women, on legal rights and family laws.⁵⁷

The main women NGOs in Malaysia – WAO, SIS, All Women Action Society of Malaysia, Malaysian Trade Union Congress (Women's Section), Women Centre for Change and Women's Development Collective – have formed a coalition known as Joint Action Group Against Violence Against Women (JAG). These NGOs have been promoting women-related issues through advocacies, engagement with the media and active participation with the public. These NGOs also played an important role in the initiation and formulation of the Putrajaya Declaration.⁵⁸

The NGOs are very vocal and firm in their stand on issues. SIS, for example, has been speaking up strongly against moral policing, though it was not a popular stand. SIS also interprets Islamic laws and provides alternative views on the translation of the Quran. It contests patriarchal views especially regarding domestic matters and Muslim women-related issues.⁵⁹

WAO is active through direct engagement and participation in government programmes. WAO and SIS have also collaborated with the media in promoting women's issues, especially in creating more awareness among teenagers and young adults through the popular media.⁶⁰ They also endorse various efforts such as the Citizen's Health Manifesto⁶¹ and the proposal to set up tribunal for sexual harassments cases.⁶²

⁵⁶ Women Aid's Organisation, <http://www.wao.org.my/aboutus.htm>

⁵⁷ Sisters in Islam (SIS), http://www.sistersinislam.org.my/home_mission.htm

⁵⁸ "Move to review gender biased laws welcomed", *The Star Online*, May 13, 2005, <http://202.186.86.35/news/story.asp?file=/2005/5/13/nation/10916795&sec=nation>

⁵⁹ "Sisterhood in Islam", interview with the executive director of SIS, *The Sun Online*, July 17, 2004. <http://www.sun2surf.com/articlePrint.cfm?id=4081>

⁶⁰ '3R Celebrates International Women's Day 2004', 3R website Press Release. <http://www.3r.com.my>

⁶¹ 'Official Launch of the Citizen's Health Manifesto', Chan Chee Koon, Universiti Sains Malaysia, March 7, 1998. <http://www.pn.usm.my/chi/media9.html>

⁶² "Set up tribunal, says action group", *New Straits Times*, March 31, 2001.

2.3 FISHERIES

2.3.1 Introduction

The fisheries sector continues to play an important role in providing fish as a source of food and protein. In 2001, it contributed about 1.54 per cent to the GDP and provided direct employment to 84,496 fishermen and 22,108 fish culturists. Over the years, the industry has succeeded in achieving a steady production from its marine inshore fisheries amounting to an average of 1.06 million tonnes.⁶³

Small-scale fishermen and large-scale commercial operators co-exist in the Malaysian fishing industry. However, it is dominated by the small-scale fishermen who operate close to shore, i.e. five nautical miles from the shore,⁶⁴ with boats below 10 gross tonnes.⁶⁵ They make little use of specialised skills and are characterised by low productivity, a high incidence of poverty and limited market outlets.⁶⁶ The main gears used by these traditional fisher folk are drift/gill nets, hook and line, achovey purse seiners, bag nets, lift nets and portable traps.⁶⁷

There have been too many small-scale fisher folk since the early 1970s. Fisheries resources in the coastal zone have also dwindled over the years leading to poor catches.⁶⁸ The government has implemented many schemes to encourage the excess fishermen to take up employment in other sectors.

On the other hand, the commercial fishermen carry out their activities on a larger scale and are highly profitable. They use large vessels, above 70 gross registered tonnage, and operate trawl nets, purse seines (except anchovy purse seine) hooks and lines at a distance of beyond 30 nautical miles from the coast.⁶⁹

2.3.2 Fisheries Profile

In 2001, the fisheries sector brought in 1,408,308 tons of fish valued at RM5.37 billion. Statistically, the fisheries sector recorded an overall decrease in production by 3.12 per cent but it has an increase in value by 0.06 per cent compared to the previous year's figures. By sector, marine capture fisheries contributed 1,231,289 tonnes or 87.4 per cent of the nation's fish production with a value of RM4.17 billion. Within this sector, coastal fisheries remained the major contributor with a production of 1,063,363 tonnes valued at RM3.66 billion. Still to be developed to its full potential, the deep sea fisheries sector managed 167,929 tonnes valued at RM509 million and contributed 11.9 per cent to the total fish production. The aquaculture sector recorded a production of

⁶³ Fishery Statistical Bulletin for the South China SEA Area. (1997). South East Asian Fisheries Development Centre (SEAFDEC), 2001, p. xiv.

⁶⁴ Fatimah Mohd Arshad and Kusairi Mohd.Noh. (1994). Agricultural Marketing Information For Selected Commodities in Malaysia. Food & Fertiliser Technology Centre, p. 3, <http://www.ffc.agnet.org/library/article/cb392.html>

⁶⁵ Annual Fisheries Statistics 2000, Volume 1, Department of Fisheries, Malaysia, p. 20.

⁶⁶ I.M. Siason, E.Tech, K.I Matics, P.S. Choo, M.Shariff, E.S. Heruwati, T.Susilowati, N.Miki, A.B. Shelly, K.G. Rajabharshi, R.Ranjit, P.G.N. Siriwardena, M.C. Nandeeshia and M. Sunderajan. (2002). Women In Fisheries in Asia. In Williams, M.J., N.H. Chao, P.S. Choo, K.Matics, M.C. Nandeeshia, M.Shariff, I.Siason, E.Tech and J.M.C. Wong (eds.), Proceedings of Global Symposium on Women in Fisheries: Sixth Asian Fisheries Forum, Nov 29, 2001, Kaohsiung, Taiwan, p 28.

⁶⁹ Annual Fisheries Statistics 2001, Volume 1, Status of the Fisheries Sector in Malaysia, p. 17. Economic Report 2004/2005: Ministry of Finance, Malaysia; September 2004, p.18.

177,019 tonnes, which constituted about 12.6 per cent of the total fish production, an increase of 5.43 per cent compared to the year 2000. The inland fisheries sector continued to be insignificant producing only 3,446 tonnes or 0.24 per cent of the total fish production. The ornamental fish industry recorded 338 million pieces valued at RM 81.03 million.⁷⁰

In 1995, Malaysia was a net exporter of fish for direct human consumption, but since then it has become a net importer.⁷¹ In 1995, the total demand for fish and fish products was about 809,300 tonnes. Out of total national production, consumable supply is estimated to be about 764,500 tonnes, equivalent to a 94.5 per cent self-sufficiency level. The demand for fish and fish products is expected to increase due to population growth, rise in per caput income and growing awareness of the health benefits of fish products. On average from 1995-1997, per capita consumption of fish in Malaysia was 55.7 kg/year.⁷² It is estimated that the total demand for fish and fish products in Malaysia by 2010 will be 1.59 million tons/year.⁷³ At the international level, demand for high value fresh fish and reformulated fish products and fish protein concentrates is also expected to increase.

Currently, fish is imported from Thailand and Indonesia to meet local demand. Malaysia is a net importer of fish in terms of both quantity and value.⁷⁴ Imports consist of fresh and frozen fish, crustaceans and mollusks, salted fish, fishmeal, and a variety of prepared fish, shellfish and mollusks products. Main imports include fresh and frozen fish and fish fry of freshwater and marine fish from Thailand. Malaysia imports canned fish (mackerel, sardine and horse mackerel) from Chile and Japan. Malaysia exports most of its high value fish to other countries and imports lower grade fish from Thailand. Malaysia faces a significant competition from Thailand and Indonesia for exports to North Asian countries. The Malaysian government has embarked on a policy to reduce import reliance by promoting the aquaculture industry.

In working towards food self sufficiency, the Fisheries Department targets an output level of 600,000 tonnes by 2010. The country's self sufficiency in fish products in 2000 was projected at about 89 per cent and was expected to increase to 89.7 per cent in 2005 and 94.3 per cent in 2010.⁷⁵ Various locations have been designated as aquaculture industrial zones (AIZ) to meet this target. Aquaculture on mudflats (for cockle farming), and fresh and brackish water, ponds (for carp, tilapia, and barramundi), currently provides about 10 per cent of domestic fish consumption, but the sector is being aggressively promoted, and is expected to increase production by four times by the year 2010.⁷⁶

The Eighth Malaysia Plan aims to intensify inland and open sea aquaculture development in line with the government's efforts to transform the agriculture sector into a modern, dynamic and competitive sector. The government proposes to promote medium and large-

⁷⁰ Ibid., p. 13-14.

⁷¹ 'Fishery Country Profile'. Food and Agriculture Organisation of the United Nations, April 2001
<http://www.fao.org/fi/fcp/en/MYS/profile.htm>

⁷² FAO. (2001). FAO Yearbook. Fishery statistics. Commodities 1999. Vol. 89. FAO Fisheries Series No. 59. FAO Statistics Series No. 161. FAO, Rome, p. 198.

⁷³ National Agriculture Policy, Ministry of Agriculture, Malaysia 1999.

⁷⁴ 'Fishery Country Profile'. Food and Agriculture Organization of the United Nations. April 2001.
<http://www.fao.org/fi/fcp/en/MYS/profile.htm>

⁷⁵ National Agriculture Policy, Ministry of Agriculture, Malaysia 1999.

⁷⁶ Malaysia (2001). *Eight Malaysia Plan (2001-2005)*, Kuala Lumpur: Percetakan Nasional Malaysia Berhad, p. 214.

scale aquaculture by establishing more production areas and encouraging greater participation of the private sector.⁷⁷ The government will undertake infrastructure development namely, modern landing and processing facilities in order to encourage private sector participation. Small-scale fisher folk will be encouraged to venture into commercial aquaculture in order to increase their income.

2.3.3 Marine Fisheries

Out of a labour force of 9.6 million, 16 per cent are employed in the fisheries sector in Malaysia.⁷⁸ With 84,496 fishermen working on licensed fishing vessels, the marine fisheries workforce increased by 3.05 per cent. Out of this, 31,641 fishermen work on trawlers and purse seiners while the other 52,855 fishermen work on traditional fishing vessels. The West Coast of Peninsular Malaysia has 31,242 (36.97 per cent) fishermen, the East Coast of Peninsular Malaysia has 22,396 (26.51 per cent) while East Malaysia accounts for 30,858 (36.52 per cent) fishermen.⁷⁹

The deep sea fishing industry has been affected by a lack of large vessels and skilled manpower. Various measures have been taken to ensure the expansion and development of the deep sea fishing industry to bring maximum benefits to the country. Among these are the issuance of new permits and new licences for deep-sea fishing as well as the training of fishermen. However, there is still a reliance on foreign labour to operate the deep-sea fishing vessels. Foreign workers are considered necessary to accelerate the development of the fishing industry. With the expansion of the deep-sea fishing fleet, especially with the involvement of chartered vessels, the number of foreign fishermen has increase from 15,166 in 2000 to 18,152 in 2001. Of these, 10,182 foreigner fishermen had been allowed to work in Peninsular Malaysia, 2,167 in Sarawak, 5,767 in Sabah and 36 in Labuan. These fishermen were mainly Thais, Indonesians and Filipinos.⁸⁰

2.3.4 Fishing Vessels

The number of licensed fishing vessels in Malaysia stood at 31,780 units in 2001 as compared to 31,531 units in 2000, increasing by only 0.79 per cent. The majority of fishing vessels operate in the coastal areas, which have exploited at an optimum level. In line with the management policy, new licences for fishing vessels are only issued for the deep sea fishing sector, where the potential is more focused in East Malaysia, especially in Sarawak. The fishing fleet in Peninsular Malaysia has increased by 1.52 per cent from 18,564 vessels in 2000 to 18,846 in 2001, while dropping by 0.23 per cent in the West Coast. There was no change in Sabah and Sarawak, with Labuan recording a drop in 33 vessels.⁸¹

⁷⁷ Eight Malaysia Plan, op. cit., p. 228.

⁷⁸ Siason et al., 2002, p. 209.

⁷⁹ Annual Fisheries Statistics 2001, Volume 1, Status of the Fisheries Sector in Malaysia, p. 15.

⁸⁰ Ibid.

⁸¹ Ibid., p. 16.

Fish stocks have severely depleted, forcing the government to stop issuing new licences for fishing vessels. Small inshore fisher folk have been affected by this move. These inshore fishermen are being encouraged to move to aquaculture, fish processing or deep-sea fishing in off-shore water.

2.3.5 Fishing Gears

Generally, each fishing vessel is licensed to operate one fishing gear. However, there are fishing operations which use more than one licensed fishing gear. At the same time, some licensed fishing vessels are being issued more than one fishing gear licence but for different seasons. The number of licences issued for fishing gears will normally exceed the number of licensed fishing vessels. The number of fishing gear licences issued in 2001 increased by 28.1 per cent compared to 2000 (24,722 units in 2000 and 31,681 in 2001).⁸²

2.3.6 Marine Fish Landings

Marine landings decreased 4.23 per cent, from 1,285,696 tonnes in 2000 to 1,231,289 tonnes in 2001. In terms of value, it decreased by 5.3 per cent from RM4.399 billion in 2000 to RM4.166 billion in 2001. Commercial fishing vessels operating trawls and fish purse seines, comprising only 22 per cent of the total fishing vessels, produced 75.6 per cent of the total marine fish landings. There was a slight decrease in the landings of trawlers by 4.85 per cent from 710,379 tonnes in 2000 to 675,957 tonnes in 2001. Landings from the purse seiners also dropped by 2.01 per cent from 260,378 tonnes in 2000 to 255,149 tonnes in 2001.⁸³

Inshore fisheries accounted for the bulk of the marine production. In 2001, it recorded 1,063,363 tonnes contributing 86.36 per cent of the total marine production. Over the last two decades, this sector of marine fisheries remained the major source of fish landings accounting for over 80 per cent annually. The traditional gears involving 24,757 fishing vessels produced only 300,183 tonnes in 2001. Within the commercial sector of the inshore fisheries, landing from trawlers went down by 4.66 per cent compared to the landings in 2000. There was also a 4.31 per cent decrease in the landings of purse seiners.

The deep sea fisheries contributed 167,926 tonnes of fish in 2001, which was 13.6 per cent of the total marine fish landing. It has gone down by 1.8 per cent compared to the preceding year. The value of deep-sea fisheries catch decreased by 0.62 per cent, from RM512.21 million in 2000 to RM 509.04 million in 2001. This contributed to 12.2 per cent of the total value of marine fish landed in Malaysia in 2001.⁸⁴

⁸² Ibid.

⁸³ Ibid., p. 16-17.

⁸⁴ Ibid., p. 17.

2.3.7 Institutions and Support Services of the Fisheries Sector

The Department of Fisheries (DOF) and the Fisheries Development Authority of Malaysia (LKIM) are the main agencies for the fisheries sector, the former concerned with efficient resource use and conservation, and the latter focuses on commercial aspects of industry development. DOF is entrusted with the task of developing, managing and regulating the fisheries sector.⁸⁵ The DOF's objectives are to increase the national fish production, manage the fisheries resources in a sustainable basis, develop a dynamic fisheries industry, intensify the development of fish-based industries and to maximise income. LKIM was set up under the Fisheries Development Authority Act of 1971 as a statutory body under the Ministry of Agriculture. Its objective is to upgrade the socio-economic status of fishermen, in particular to enhance their income and to develop and expand the fishing industry.

LKIM's activities are centred on four main programmes, namely fishing industries development, fish marketing/marketing support services, fisheries institutional development and entrepreneurial development.⁸⁶ The fishermen have also formed various types of institutions. They include the National Fishermen's Associations (NEKMAT), State Fishermen Association, Area Fishermen Association and Fishermen Co-operatives. Currently, there are 116 such institutions and over 60 per cent of the fishermen in the country are members. The State and Area Fishermen's Associations are also members of the Malaysian Investment Co-operative. The co-operative acts as an investment arm that helps promote savings, investment and business through its activities.⁸⁷

2.3.8 Sources of credit

The fish industry in Malaysia has access to formal and informal sources of credit, i.e. special agricultural credit scheme (SACS) and fund for food scheme (3F Scheme). The Malaysian Agricultural Bank administers both credit schemes. SACS was established in 1986 and provides financial assistance to fisher folk to adopt new technologies, embark on projects on a commercial scale and for value-added downstream activities. The 3F Scheme is to increase domestic food production and to enhance the process of substitution for food products. Informal sources of credit are important and act as the main galvanising force in integrating the market levels and in coordinating the fish distribution system. The interlocking role of credit permeates all levels of the marketing chain.⁸⁸

⁸⁵ Anonymous (2002). Implementation Status of the Research Components (March-August 2002). Fish Supply & Demand in Asia: Progress Report 2002, p. 1.

⁸⁶ Ibid.

⁸⁷ Anonymous (2001). Information on Fisheries Management in Malaysia, April 2001, p. 20. <http://www.fao.org/fi/fcp/en/MYS/body.htm>

⁸⁸ Ibid., pp. 1 -2.

The Fishermen's Fund is a special interest free loan facility for fishermen to help them increase their catches and their income. The fund was set up to enable fishermen to buy or replace their boats, engines, nets and equipments, to obtain emergency/immediate loans and to secure a working capital. The fund also enables fishermen's associations to secure working capital for their fish marketing projects. Inshore, traditional fishermen, especially Zone A boat operators and fishermen's associations, are eligible to apply for this loan. The loan terms are the fishermen must be members of fishermen's associations, own valid fishing vessel licences, operate the vessels themselves and sell their catches exclusively to the fishermen's associations.

Each loan must not exceed RM25,000 and the fishermen are eligible for a second loan once they settled the first. There is also an emergency loan not exceeding RM 1,000. The fishermen's associations are allowed a loan based on the number of fishermen involved in the marketing scheme and the quantity and types of fish they are handling. The repayments will be *via* deduction from the proceeds of the fish sold to the fishermen's associations. The amount of installment to be paid will depend on the amount of loan taken and the repayment period should not exceed 48 months (four years). For the fishermen's associations, repayments are *via* installment made to the Fish Development Authority (FDA) based on the approved loan amount and repayment period allowed. All successful candidates are required to sign a loan agreement.⁸⁹

The fund has been very popular and successful in achieving its objective of channeling funds to fisher folk. The initial allocation for the fund has benefited about 890 individuals in the country, involving a sum of RM15,587,945.⁹⁰ A total of RM85 million will be added to the initial allocation based on the overwhelming response from fisher folk and fishermen's associations.⁹¹

2.3.9 Fish Marketing

Most fish catches are landed on private landing complexes or jetties. The transport of fish from producing to consuming areas is fairly well organised. Fish is packed in ice and transported in insulated boxes. Its collection and flow are efficiently accomplished by agents at producing areas. Fish imported into the country consists primarily of fresh fish transported in plastic containers. The use of plastic containers for fish imports is mandatory as a means of controlling quality during transportation. Consumers prefer fresh fish to frozen fish.⁹²

Fish marketing goes through a number of stages. Usually fish are bought by wholesalers at the production areas and is then passed on to consumers. Direct marketing by producers to consumers is minimal. The wholesaler at the consuming areas play a major role in determining fish prices, volume of fish purchased, time of purchase and the species of fish handled. There is a strong link between the wholesaler in the fish landing

⁸⁹ <http://www.lkim.gov.my/dananelayan/index.html>

⁹⁰ 'Dana Nelayan-Pinjaman tanpa faedah untuk nelayan', Utusan Malaysia supplement, May 3, 2005, p. 8.

⁹¹ 'Ucapan Persidangan Halatuju Sektor Pertanian dan Industri Berasaskan Pertanian', Opening speech by Minister of Agriculture and Agricultural-Based Industry in Serdang, Selangor, on Aug 12, 2004

⁹² Othman Jamaludin. (2000). Operation of Agricultural Wholesale Markets: Country Paper Malaysia, p. 105.

area and the wholesalers in the consuming areas. They maintain daily contact to adjust price and volume. Fish products for wholesale markets are collected and packed by the

producing area wholesalers who then sent it to the wholesale market for trading as shown in Diagram 1.⁹³ The fish passes through the hands of assemblers, wholesalers and retailers before reaching the final consumers.

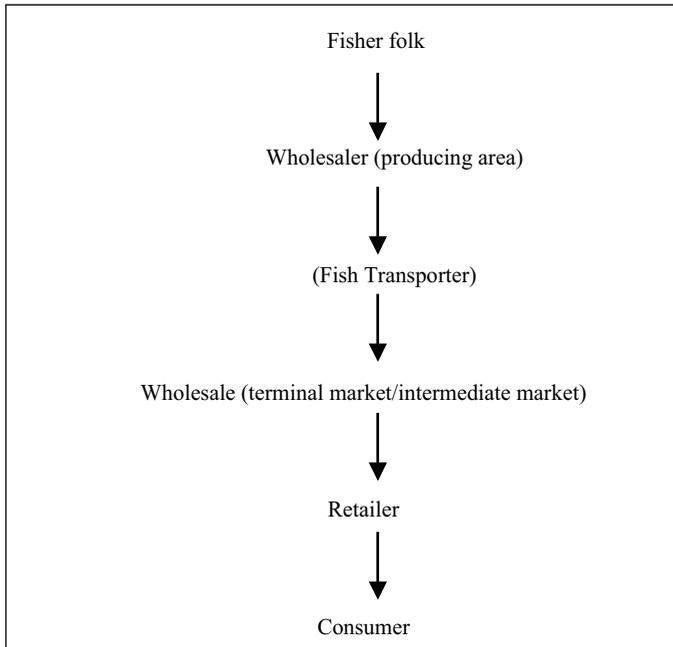


Diagram 1: The Fish Marketing Process

2.3.10 Gender in Fisheries

Women working in the small scale fisheries are not recognised as being economically productive. This is because they are considered as engaging in subsistence rather than commercially oriented activities, and therefore female labour is classified as “unpaid family worker”. Observations have indicated that Malaysian women in small scale fisheries put in long hours of work daily, with half the time spent in self-employed, income earning activities, where such activities supplement the average fishing household’s income-earning capacity. Women’s economic participation in the small scale fisheries sector is inadequately documented. Thus, women’s economic contribution to the

⁹³ J.Yahaya (2001). Women In Small-Scale Fisheries in Malaysia. In William, M.J., M.C. Nandeesh, V.P. Corall, E.Tech and P.S. Choo (eds.), Proceedings of the International Symposium on Women in Asian Fisheries: Fifth Asian Fisheries Forum, Asian Fisheries Society, Nov 13, 1998, Chiang Mai, Thailand, p. 156. http://www.iclarm.org/pub_WIF.htm

Malaysian fisheries sector has not only been sadly neglected but also grossly underestimated.

The notion that women are banned from fishing is incorrect as there are instances when women do fish. Women's participation in actual fishing is evident in the east coast states of Kelantan and Trengganu and, to a lesser extent, in Kedah on the west coast of Peninsular Malaysia. These fisher women fish mainly from the shore or in shallow protected waters using simple hand-operated gear such as hooks and lines, scoop nets or traps. The catch is used primarily for home consumption while the surplus may invariably find its way to local fish dealers, village retailers, friends and relatives. Women's involvement in shore-based activities in small scale fisheries is most evident in the seafood processing sector, involving both small home-based establishments and large industrial fish/prawn processing plants. These small scale, home based establishments are usually operated on a family or household basis.

Characterised by small scale operation, low capital investment and simple labour intensive technology, these establishments produce a wide range of fishery products such as fish crackers, fermented fish, fish balls, fermented fish sauce, shrimp paste, dried jelly fish, dried anchovies, salted fish and fish satay. These businesses employ a high proportion of daily paid female labour, the majority of them are wives and daughters of fishermen. Their main job activities include sorting, gutting, cleaning, drying, curing, and packing of fish and/or prawns. Such employment provides low cash incomes, ranging from RM5 to RM8 a day.⁹⁴ Women who work in large industrial fish/prawn processing plants carry out the same activities such as sorting, dressing and packaging and yet earn a small salary. More than 80 per cent of the workforce in the canning and prawn processing factories are women working mainly as operators in the processing lines.⁹⁵

As aquaculture becomes more intensified and more commercialized, there is a corresponding decrease in the involvement of women.⁹⁶ Women generally carry out routine, non-technical activities passed on to them by family members. Many lack the highly technical skills and basic understanding on ecological and biological requirements of the intensive commercial systems, these skills and knowledge are crucial in many cases to the success of commercial farms. Upgrading of skills is frequently made available by extension courses organized by the Government. Training courses, however, are attended mainly by men. Most women have domestic tasks, which prevent them from staying away from home for a period of time. There were only 18 women of a total of 952 participants trained at the aquaculture courses on the culture of penaeid prawn, giant freshwater lobster, mussel, and fish conducted at the National Prawn Fry Production and Research Centre in Kedah, Malaysia from 1996-2001.⁹⁷

⁹⁴Ibid., p. 101.

⁹⁵ Siason et al., 2002, p. 209.

⁹⁶ Felsing, M., C. Brugere, K. Kusakabe and G. Kelkar. (2000). Women for aquaculture or aquaculture for women, *INFOFISH International*, No 3/2000, May/June, pp. 34-47.

⁹⁷ Siason et al., 2002, p. 209.

2.3.11 Major government agricultural policies and programme

The government, consistent with the dictates of the Third National Agriculture Policy, plans to transform the fishing industry into a commercial activity with particular emphasis on deep-sea fishing and aquaculture. It is suggested that aquaculture will be aggressively developed to supplement production from marine fisheries, as well as to cater for exports.

2.3.12 Income and poverty situation among small producers

In the fisheries sector, widespread poverty is one of the most pressing issues, especially among traditional fishers trying to make a living from the measly catches from over exploited waters. Policy changes and better management are called for to change this condition. A range of problems, many with gender dimensions, accompany the poverty of many fishing families and communities.⁹⁸

2.4 Pattern of investments, with ASEAN and Extra-ASEAN

Malaysia has been a strong exponent of trade liberalisation and a supporter of the multilateral trading system. Malaysia participates actively in regional economic arrangements, including the ASEAN Free Trade Area (AFTA), along with ASEM and APEC. Malaysia is also an active member of the World Trade Organisation (WTO). Malaysia has consistently been critical of WTO's policies towards the developing world.

In the AFTA context, Malaysia places a high priority on the early implementation of the common effective preferential tariff (CEPT) scheme which provides for concessional tariffs on intra-ASEAN trade. However, Malaysia continues to offer significant protection to its national automotive industry. In 2000, Malaysia won a concession from other AFTA members for the non-application of AFTA to its automotive industry until 2005. Malaysian market access for foreign service providers remains limited in the financial and professional services.

Malaysia has included 97.4 per cent of products in the CEPT Scheme, of which 99.2 per cent are at duties from zero to 5 per cent, and 60.8 per cent have no duties at all. ASEAN has also evolved as Malaysia's largest export market, accounting for more than one quarter of its global exports. ASEAN is also Malaysia's largest trading partner accounting for 24.6 per cent of its global trade, or US\$42.6 billion in 2002. Trade with the CLMV group (Cambodia, Laos, Myanmar and Vietnam) has grown by almost seven-fold, from only US\$208 million in 1992 to US\$1.38 billion in 2002.⁹⁹

⁹⁸ Williams, Stella and B. Awoyomi. (1998). Fish as a Prime Mover of the Economic Life of Women in A Fishing Community. Proceedings of the IXth International Conference of the International Institute of Fisheries Economics and Trade (IIFET), Tromso, Norway, pp. 286-292.

⁹⁹ International Trade and Industry Minister Datuk Seri Rafidah Aziz's speech at the Asia Society 13th Asian Corporate Conference, "Opening Markets and Continuing Growth – Vietnam and the Asian Society", in Hanoi on March 7, 2003.

Malaysia's intra-Asean trade for 2002 amounted to US\$156.9 billion or 21.4 per cent of ASEAN's total trade for the year. Net intra-ASEAN investment in 2001 amounted to US\$1 billion with Malaysia contributing US\$3.8 million of total intra-ASEAN investment flows.¹⁰⁰

Malaysia's trade with ASEAN increased three times from RM57.9 billion in 1993 to RM173.7 billion in 2000. In 2000, Malaysia was the second largest contributor to intra-ASEAN trade. This accounted for 26 per cent of total intra-ASEAN trade. However, in 2001 there was a 17.7 per cent drop in trade with ASEAN, from RM173 billion in 2000 to RM147.6 billion in 2001. The overall trade with ASEAN has increased. Between 1996 and 2000, average growth rate with ASEAN increased by 20.7 per cent.¹⁰¹

A preliminary examination of Malaysia's investments suggests that Malaysian industries involving iron, steel and tires have benefited from the ASEAN trade as a result of an increase in imports. However, the country will face stiff competition in automotive parts, ceramic tiles and basin, plastic products and aluminium.

The Ministry of International Trade and Industry indicates that regional integration could affect several sectors including apparels, footwear, furniture, examination gloves, processed food such as vermicelli, canned food etc, plastic products and automotive parts and components. These are by and large small and medium industries (SMI).

The inclusion of the ASEAN+3 countries, i.e. China, Japan and South Korea deserves significant consideration. ASEAN members' trade with these countries is even greater than intra-ASEAN trade. Thus, the significance of this phenomenon on small farmers has to be studied.

¹⁰⁰ ASEAN Statistical Yearbook, 2004.

¹⁰¹ International Trade and Industry Minister Datuk Seri Rafidah Aziz's speech at the Seminar on Future Trade Environment: WTO Post Doha and AFTA, in Kuala Lumpur on Feb 26, 2002.

Chapter 3

Methodology

3.1 Methods of Data Collection

3.1.1 Literature survey (Secondary data)

Various sources of secondary materials were used to gather pertinent information regarding this research such as books, reports, magazines, journals, statistical reports, the Internet and various newspapers.

3.1.2 Administered interviews (Survey questionnaire)

The questionnaire provided by the South East Asian Council for Food Security and Fair Trade was translated into the national language i.e. Bahasa Malaysia (BM) for easy administration. Since the respondents involved in this survey were mainly Malay rice farmers, it was easier to converse with them with the aid of a BM questionnaire.

3.2 Sampling Design

The respondents were selected using a non-random sampling method. Representatives from ERA Consumer Malaysia approached the farmer leaders in the respective villages to identify potential respondents based on the criteria laid out in the questionnaire. The farmer/fisher folk leaders then arranged the interviews to be carried out. The farmer/fisher folk leaders were approached because it is a common practice in Malaysia to seek their permission or approval when carrying out research in their respective areas. These farmer/fisher folk leaders are normally also the heads of the villages or have high influence on the villagers. With the assistance of the farmer/fisher folk leaders, the rice farmers as well as the fisher folk provided the field interviewers good cooperation and feedback. The administered interviews were carried out in numerous places, i.e. at the paddy fields/ fisher folk's boats or at the shore and at their respective homes, depending on the convenience of the respondents. Each administered questionnaire lasted approximately one hour.



The actual sample size exceeded the target sample size by six respondents (Table 3.1). Kelantan was not covered in this research because the farmers/fisher folk who were approached to participate in this survey were reserved in providing feedbacks. Although the state was not covered as part of this research, ERA Consumer was able to meet the target sample size by increasing the sample sizes in Kedah and Perak. We indeed had a good representation of men and women respondents in both states.

Since women no longer play a dominant role in the farming and fishing sectors in Malaysia, the number of women farmer/ fisher folk respondents targeted were based on their population in these sectors, i.e. forty per cent. Since the primary crop focused in this AFTA research was rice, more weight was given in obtaining a larger amount of representation from this sector. The bulk of the respondents from the rice farming sector came from Kedah as this state is known as the rice bowl of Malaysia. The concentration on the number of respondents obtained for the fisheries sector in Perak was justified as it is known to be the largest fishing state in Peninsula Malaysia.

Table 3.1: Sample Size

Research Areas		Target Sample	Actual Sample
RICE:	<u>Sub-total</u>	<u>150</u>	<u>147</u>
Kedah	Male	54	61
	Female	16	40
Kelantan	Male	16	0
	Female	10	0
Perak	Male	20	31
	Female	14	15
FISHERIES:	<u>Sub-total</u>	<u>100</u>	<u>109</u>
Kedah	Male	13	23
	Female	8	15
Kelantan	Male	14	0
	Female	9	0
Perak	Male	34	48
	Female	22	23
Total		250	256

3.3 Training of lead researchers and field interviewers

The training of the lead researchers was provided by resource persons or experts from this field during the South East Asian Council for Food Security and Fair Trade's training for lead researchers conducted in April 2003 and January 2004.

The field officers were selected mainly based on their experience and knowledge in regards to conducting field interviews. The field officers were provided a one day training session with regards to understanding the questions in the questionnaire, conducting a mock interview, probing for information that is not easily obtainable, i.e. income and expenses of respondents among others. The field interviewers were also informed on the importance of good etiquette during the interview process as not to jeopardise the image of the organisation that is carrying out the research, i.e. ERA Consumer.

3.4 Data Processing and Analysis

The completed questionnaires underwent a thorough inspection by the lead researcher to check among others for discrepancy in answers, logical checks and adherence to skipping instructions.

The lead researcher provided the research manager of SEACON the additional answers that came out of the questionnaires for questions that had the "others" option as an answer. With the additional answers provided, a standardised code list was developed for the five countries that were involved in the primary research as to avoid duplications and redundancy of answers.

The data from the questionnaires was then keyed into the database that was created by SEACON in the Microsoft Access format. Microsoft Access was the main software used in data encoding as all countries were familiar with this format. The completed data entry was then sent to SEACON for processing. The processing of data was carried out using the Statistical Package of Social Science (SPSS) software. This software was used because it was easier and faster in producing the results required. The encoded data was then sent to SEACON for processing. Prior to processing, the data was cleaned first as to ensure there was no existence of errors during the data entry stage. The processed data was sent to ERA Consumer for write up purposes for Chapter 4 and 5.

Chapter 4

The Socio Economic Situation of Small Producers in the Era of AFTA

4.1 Presentation of Results – Rice Sector

4.1.1 Demographic Characteristics of Respondents and their Households

The male-female ratio of 60:40 was deliberately chosen to depict the number of men and women actively involved in the farming activities in the paddy sector. Thus, 92 respondents involved in this survey were male farmers and 55 were female farmers. Women currently in the farming activities are there to assist their spouses who face difficulty in hiring farm labour or due to inheritance of the farms from their late spouses or parents.

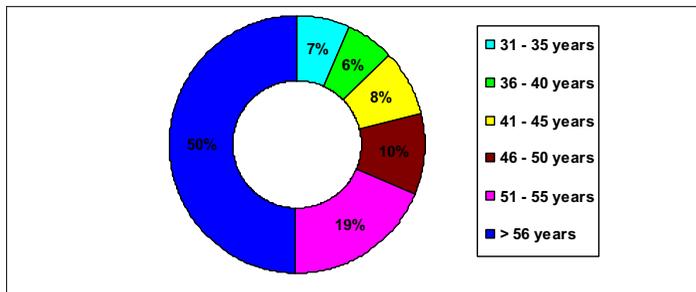


Figure 4.1: Respondents' Age

Of the 147 farmers interviewed, almost 70 per cent belong to the 51 and above age group category (Figure 4.1).

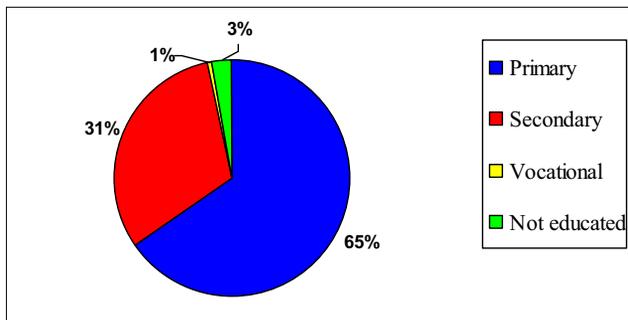


Figure 4.2: Educational Attainment

Of the total, 83 per cent of the respondents are married. About 65.3 per cent of the farmers have a minimum primary education and about 31.3 per cent had attended secondary school (Figure 4.2). The findings of this AFTA study show that farmers have placed great importance on education as an avenue to improve the quality of their working lives.

Table 4.1: Number of Household Members

Number of Household Members	Number of Responses	Percentage (%)
1	4	2.7
2	11	7.5
3	10	6.8
4	17	11.6
5	23	15.6
6	15	10.2
7	27	18.4
8	11	7.5
9	10	6.8
10	9	6.1
More than 10	10	6.8
TOTAL	147	100.0

In terms of number of households, 55.8 per cent of the respondents have between four and seven members in a household (Table 4.1).

Table 4.2: Number of Children

Number of Children	Number of Responses	Percent
1	13	9.6
2	12	8.9
3	26	19.3
4	15	11.1
5	26	19.3
6	13	9.6
7	10	7.4
8	11	8.1
9	4	3.0
10	5	3.7
TOTAL	135	100.0

Almost 50 per cent of the respondents have between three and five children.

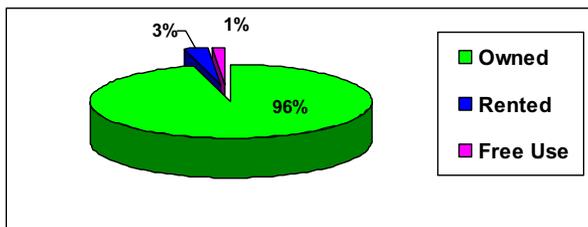


Figure 4.3: Ownership of House

Most of the respondents (96 per cent) in the various villages are house owners while the rest are tenants.(Figure 4.3). A few dwell in rent-free houses. Those who owned homes comprised joint ownership (53.1 per cent), wife-only owned house (13.6 per cent) and husband-only owned house (21.8 per cent). Generally, there was a high house ownership level among small farmers. The structure of the houses covered in this study was mainly permanent in nature (91.8 per cent), i.e. made up of concrete and with galvanized roofing.

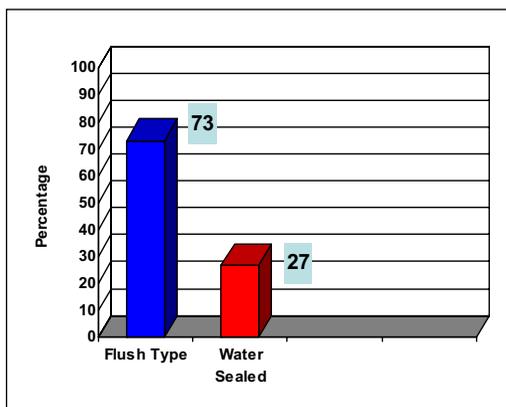


Figure 4.4: Toilet Facilities

As shown in the above figure, 73 per cent of houses owned or rented by the respondents were equipped with flush type toilets while 27 per cent have water-sealed toilets.

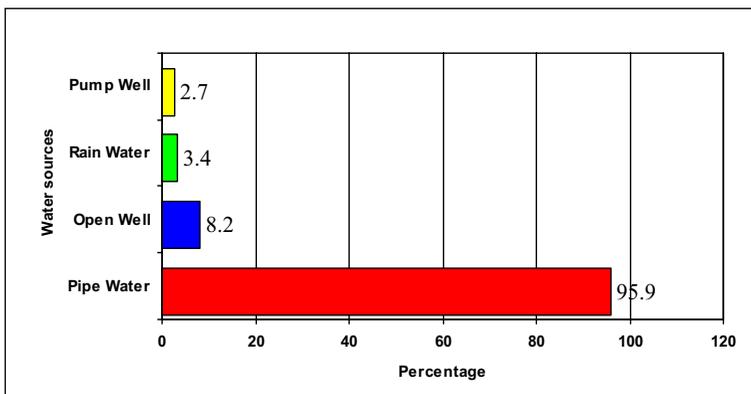


Figure 4.5: Sources of Drinking Water*

In all the villages surveyed, water for drinking, washing and other purposes is commonly from piped water (Figure 4.5). The other sources of water are open well, pump well and rain. All respondents have electricity in their houses.

The majority of primary roads in the villages studied are tarred while the secondary roads are either tarred or dirt.

4.1.2 Farm and Land Ownership Profile

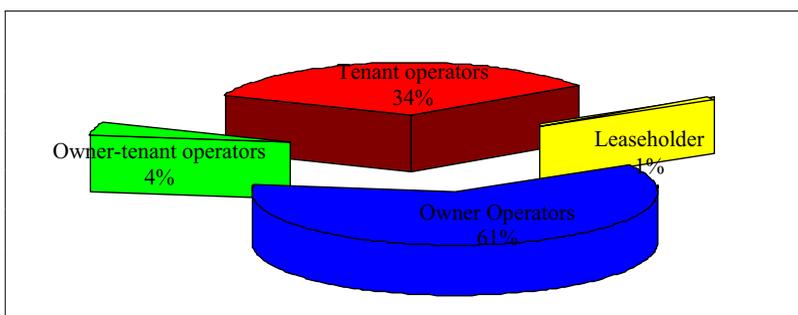


Figure 4.6: Tenure Status

The respondents belong to five tenure groupings, i.e. owner-operator, owner-tenant operator, tenant-operator, and leaseholders. Figure 4.6 shows that 61 per cent of the respondents owned and cultivated their own land. Another 34 per cent of them pay rent

* Involves Multiple Responses

for the land they cultivate while 4 per cent are part owners of the land and the remaining 1 per cent are leaseholders.

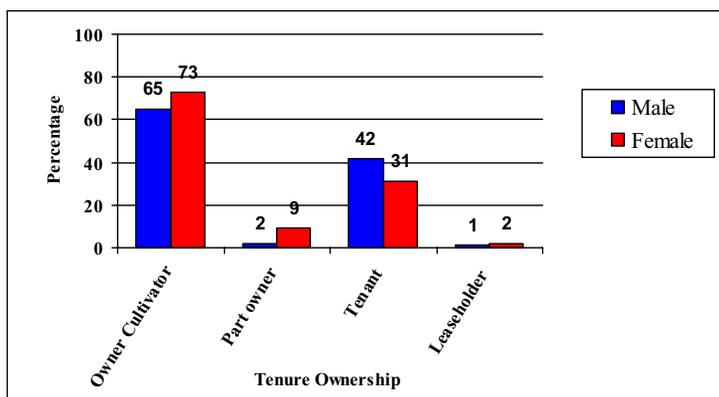


Figure 4.7: Tenure Ownership by Sex (in percentage)¹⁰²

Out of the 55 female respondents, 73 per cent were owner cultivator while 31 per cent were tenants. This trend is also the same for the male farmers, majority of them owned and cultivate their farming land (65 per cent) while 42 per cent of them are tenants.

Table 4.3: The Average Paddy Plot Size

RICE TENURE	AVERAGE FARM SIZE
Owner-cultivator	1.25 ha
Part-owner	1.51 ha
Tenant	1.62 ha
Leaseholder	2.15 ha

The average land size cultivated by the respondents was 1.63 hectares. Respondents who were owner cultivators had an average land size of 1.25 hectares, followed by part owners who had an average of 1.52 hectares, tenant cultivators had an average of 1.62 hectares and leaseholders had an average of 2.15 hectares.

¹⁰² The percentages do not add up to 100 because of multiple responses.

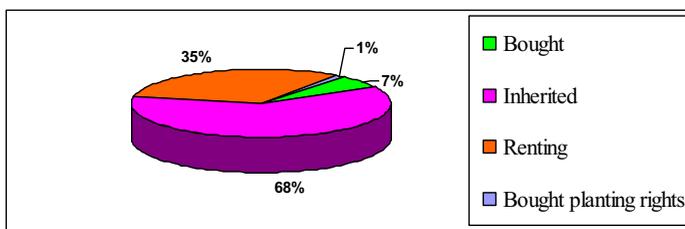


Figure 4.8: Farm Ownership*

Majority of farm owners (68 per cent) reported that they acquired the land through inheritance while a 35 per cent of farmers were renting the land they tilled. Another 7 per cent of respondents said they bought the land on their own, while some respondents obtained their lands by buying the planting rights (Figure 4.8).

Table 4.4: Change in land ownership

Ownership of the farm land	2004 (%)	1999 (%)
Parents	6.1	11.6
Both husband and wife	11.6	10.9
Husband	40.1	36.7
Wife	17.7	15.6
Children	0.7	0
Relatives	4.8	4.8
Other farmer/s	10.9	12.9
Landowner who does not farm	10.9	10.9

From Table 4.4, it can be seen that the land cultivated/tilled is mostly owned by the husbands, followed by the wives and joint ownership. There was a change in land ownership between the years 1999 and 2004 and the reason given was because these individuals (26.9 per cent) inherited the land. The other respondents (74.1 per cent) did not give reasons for the change of the land tenure.

* Multiple responses

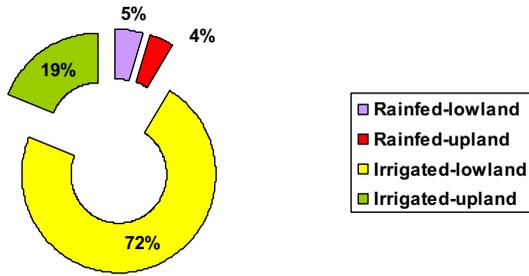


Figure 4.9: Land classification

As shown in Figure 4.9, majority of the respondents tilled irrigated-lowlands.

4.1.3 Cropping, Production and Expenses

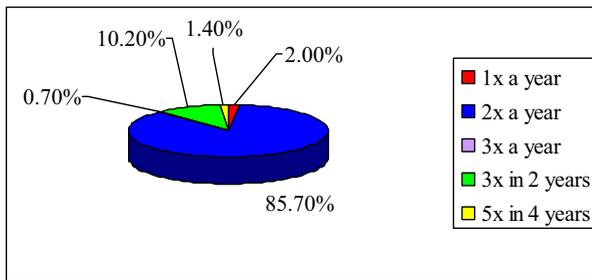


Figure 4.10: Frequency of harvesting

Majority of Malaysian farmers, like their counterparts in other ASEAN countries, harvest their paddy twice a year (Figure 4.10). The two periods are from November to January and April to July.

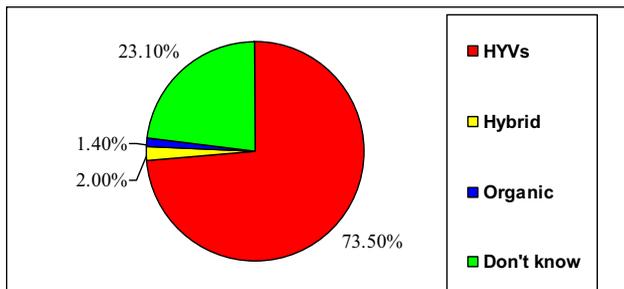


Figure 4.11: Seeds used

Almost 74 per cent of respondents plant High Yielding Varieties (HYVs) seeds on their farms and 85 per cent did not save these seeds for the next planting season (Figure 4.11). They did not save seeds as it was a hassle (96.8 per cent) while a small number of farmers (9.3 per cent) indicated that natural disaster such as flooding prevented them from saving their seeds.¹⁰³ The farmers require the necessary facilities and infrastructures to conserve and store the seeds. This requires a lot of money, which these farmers did not have. The farmers buy the HYVs seeds from the Agricultural Department in the district. These seeds are supplied by the Malaysian Agricultural Research and Development Institute (MARDI), a government agency. During the FGD session, the farmers indicated that there was a sense of security when buying from the government. This is because the farmers will be compensated with a new batch of seeds without additional cost if a majority of the paddy fields in the village are infected with disease from the seeds provided by the government.

4.1.4 Farm Incomes

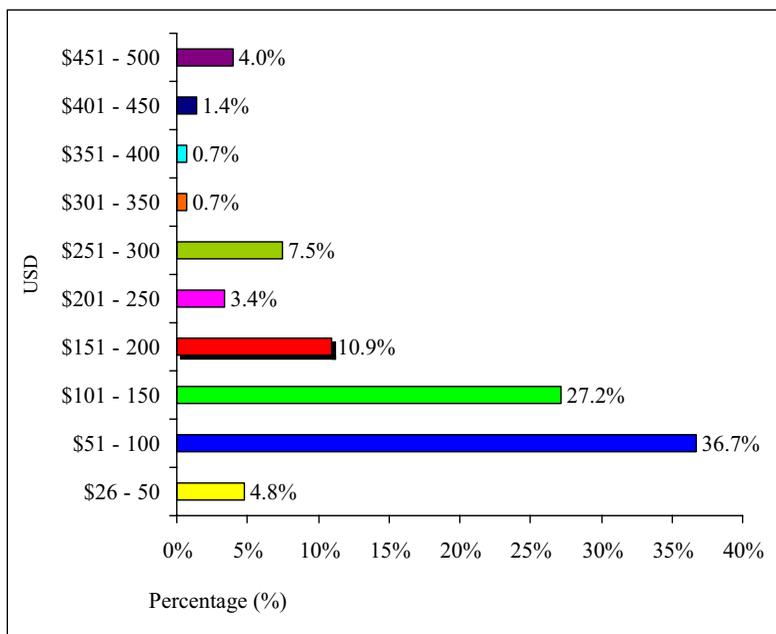


Figure 4.12: Respondents' Net Income*

¹⁰³ Eighty five per cent of respondents who said 'no' provided multiple answers on why they did not save seeds

* 2.7 per cent of respondents did not provide their net incomes

The major source of income for the majority of the respondents (73 per cent) was from the agricultural sector while 23 per cent received from the non-agriculture sector, i.e. manufacturing, services etc.

The monthly net income of 36.7 per cent of the respondents was between US\$51 and US\$100 (RM193.8 and RM380) while 27 per cent took home an income of US\$101 to US\$150 (RM383.8 to RM570). Hence, it can be deduced that the net income of a large number of respondents (63.9 per cent) fell into the category of US\$51 to US\$150 (RM193.8 to RM570). (See Figure 4.12).

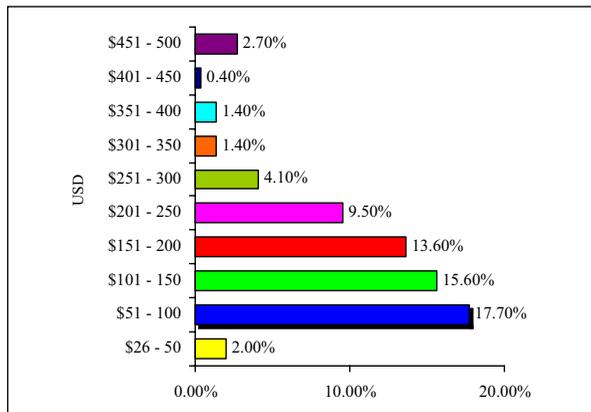


Figure 4.13: Respondent's Household Net Income

The household net income of almost 57 per cent of respondents was between US\$51 and US\$250, of which 17.7 per cent were in the US\$51-US\$100 range, 15.6 per cent in the US\$101-US\$150 range, 13.6 per cent in the US\$151-US\$200 category and 9.5 per cent in the US\$201-US\$250 range (Figure 4.13). During the FGD session, the farmers indicated that their wives and older children contribute to the household income, either by working in factories, doing odd jobs or engaging themselves in small cottage industries making and selling cookies and delicacies.

4.1.5 Prices and Markets

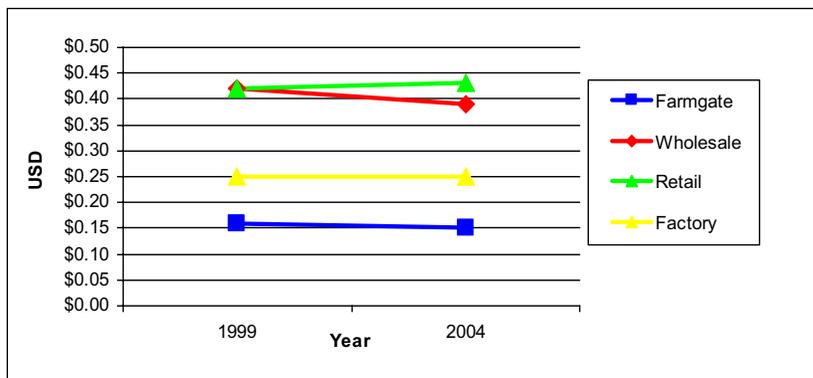


Figure 4.14: Prices of Paddy per kg Across Sectors

Figure 4.14 indicates that farm gate and wholesale prices of paddy have decreased while the retail price has increased and the factory price remained unchanged since 1999. The difference between the average farm gate and retail price of paddy was US\$0.26 per kg in 1999 and US\$0.28. The figure clearly shows that the farmers, millers/factories and wholesalers were affected by the drop in paddy price over the five-year period. However, the retailers seem to be profiting from this supply chain. They have somehow managed to increase the retail price of rice by US\$0.01 per kg over the five years.

The farmers attribute the drop in farm gate prices to the low prices set by traders (39 per cent), increase in import (15.9 per cent) and inadequate subsidies for farmers (12.2 per cent).

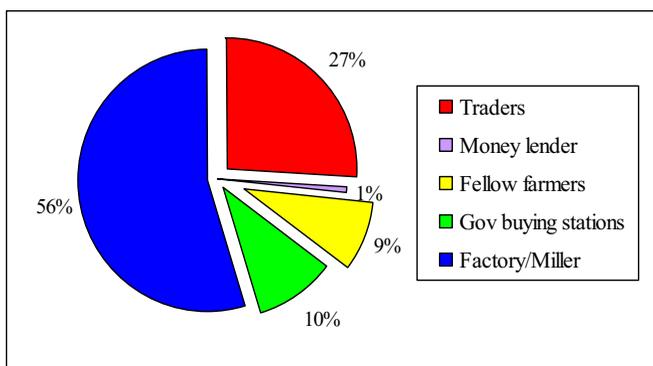


Figure 4.15: Paddy buyers*

* Involves Multiple Responses

Generally, the farmers covered in this research sell their harvest to more than one buyer. In figure 4.15, it is shown that the majority of farmers (56 per cent) sold their paddy to the factories or millers and traders (27 per cent).

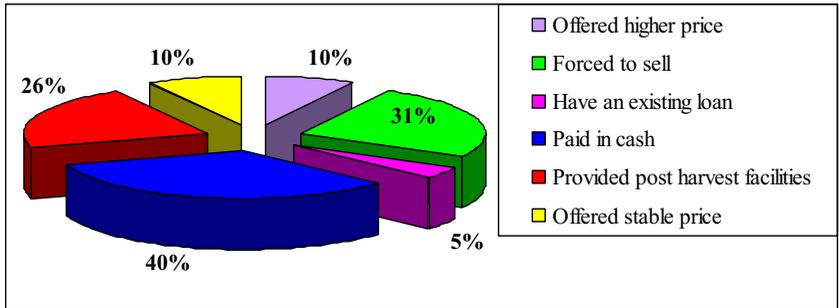


Figure 4.16: Reasons provided by farmers in choosing buyers*

Farmers tend to sell their produce to the two main buyers because they are paid in cash. They are also forced to sell to them (millers and traders) due to debts. Thirdly, these buyers provide post-harvest facilities such as transportation and storage to the farmers (Figure 4.16).

* Involves Multiple Responses

4.1.6 Problems of Small-scale Farmers

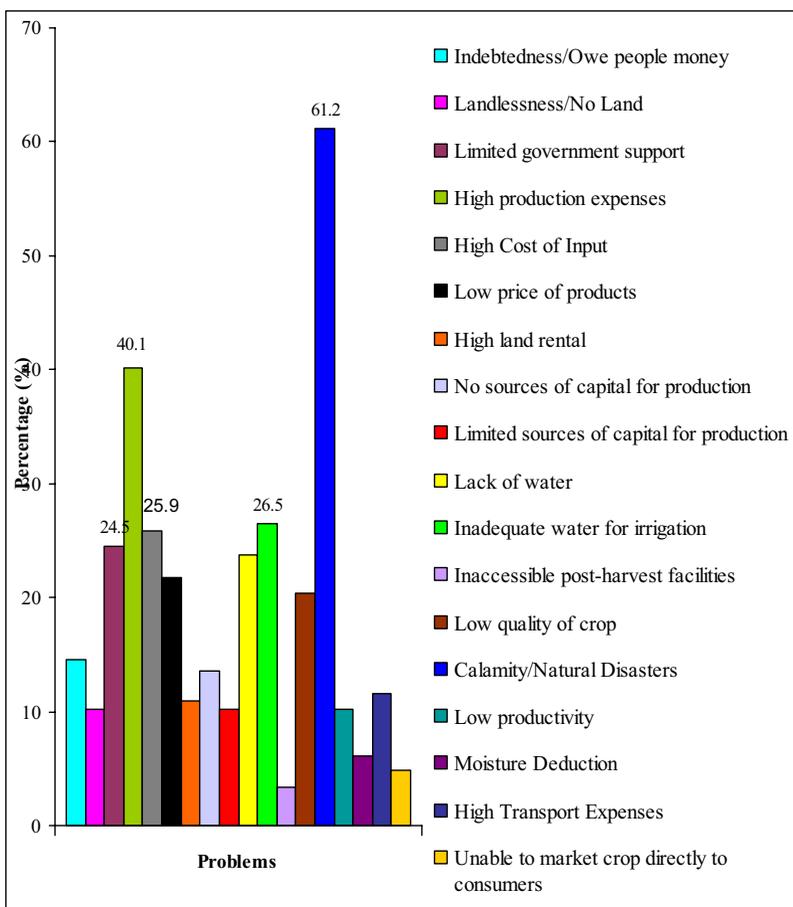


Figure 4.17: Problems faced by small paddy farmers

Figure 4.17 shows the major problems faced by small paddy farmers. Majority of the paddy farmers interviewed (61.2 per cent) indicated that calamity/natural disasters such as flood, drought and crop diseases affected their yields. The second major problem cited by the respondents (40.1 per cent) was the high production expenses, which included rental, labour, irrigation and machinery costs, interest on loan and land preparation.

Another problem faced by the farmers (26.5 per cent) was inadequate irrigation due to the drought situation that seemed to be worsening every year. Water shortage affects rice yields, thus reducing the small farmers' income. This often forced farmers to borrow and get into debts. High cost of input is the fourth problem. The farmers tend to spray pesticide/insecticide frequently to prevent the pest/disease problems in the paddy fields. Hence, they incur higher cost.

4.1.7 Recommendation to address the problems faced by small scale farmers

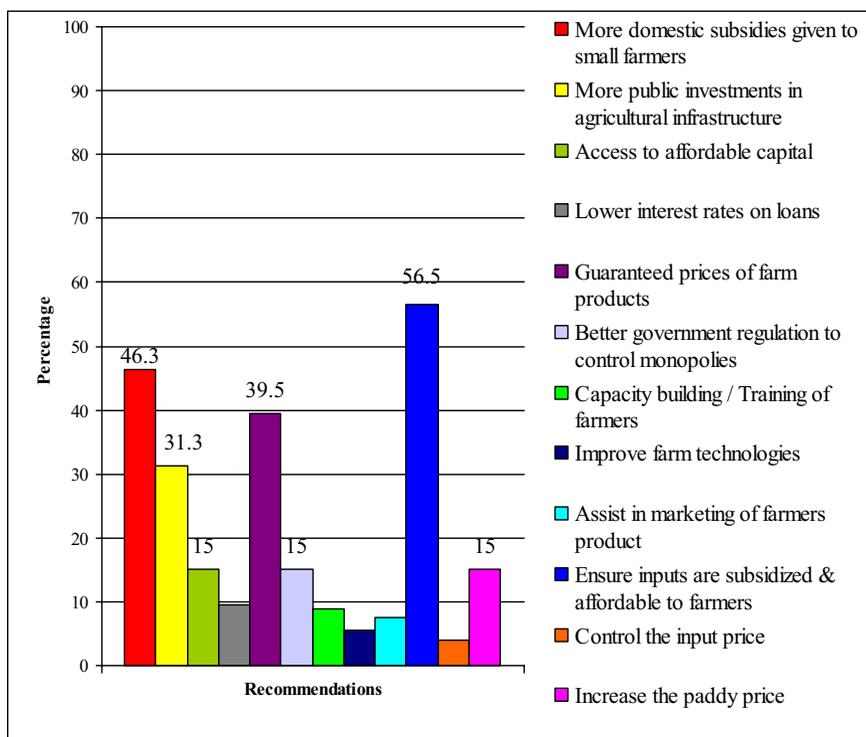


Figure 4.18: Suggestions to overcome problems

The farmers' recommendations to address the problems are shown in Figure 4.18. Their biggest problem was natural disasters/calamities. However, since this misfortune is perceived as an 'act of God', there is no one solution to the problem. Most farmers (56.5 per cent) felt that the ever increasing prices of input should be controlled to ease their heavy burden. However, the government has not responded positively to their plea. It has been reported that the government was aware of the financial difficulties the small farmers faced due to increase in fertiliser and pesticide prices. However, the Ministry of Agriculture and Agro-based Industries was not in favour of listing fertilisers and pesticides as controlled items, as demanded by the farmers. Instead, the ministry suggested that farmers should minimise fertiliser use and adopt sustainable agricultural practices. The ministry felt farmers should use alternatives such as composting.¹⁰⁴

¹⁰⁴ "Government has no plans to control price of fertilizer, *The Star*, May 13, 2004.

The government encourages the use of organic fertilisers and farming practices as there are increasing demands for organic food products. The government planned to increase organic production by 250 hectares in the 2001-2005 period by providing additional assistance of up to RM5,000 per hectare and a one off provision for infrastructure development – such as farm roads, irrigation, drainage, electricity and water – for organic farms. Organic producers were also eligible for existing credit schemes as well as the 3F loan (fund for food). The government also planned to introduce an accreditation scheme for producers to promote and develop markets for organic products.

Mineral fertilisers accounted for more than 90 per cent of fertilisers used in Malaysia. Though urea is produced in large amounts in Malaysia, they are not used locally. This is because the prilled urea produced in Malaysia is exported because it fetches a high price in the international market. According to the Department of Statistics, about 1.32 million nutrient tonnes of mineral fertilisers valued at RM1.14 billion (US\$0.3 billion) were imported into Malaysia in 2001. However, there is a gradual trend to complement or substitute mineral fertilisers with organic ones, where feasible. This is a result of increasing fertiliser prices and the environmental hazards of their use.¹⁰⁵

Most fertilisers used in Malaysia are imported. There was an increase in fertiliser imports from 1997 to 2000 but the imports declined by about 26 per cent between 2000 and 2001. Nitrogenous fertilisers are imported mostly from Indonesia, while phosphatic and potassic fertilisers come from Christmas Island and Russia respectively. Malaysia exported large quantities of urea, worth RM446 million, to Australia, Thailand, Vietnam and other countries in 2001.¹⁰⁶



Almost 40 per cent of the respondents mentioned that more domestic subsidies should be provided to farmers. This is to ensure that the paddy farmers continue to cultivate their lands and not leave them idle by venturing into other sectors of the economy in order to earn enough to sustain their families. Farmers (39.5 per cent) have also indicated that paddy prices should be guaranteed and not be dictated by middlemen/millers.

¹⁰⁵ Anonymous, Fertilizer use by crop in Malaysia, First Edition, FAO, Rome: Food and Agriculture Organization of the United Nations, 2004. <http://www.fao.org/docrep/007/y5797e/y5797e00.htm>

¹⁰⁶ Ibid

Farmers reported that middlemen deducted a certain portion of their harvest as they claimed that it had high moisture content and thus appeared to be heavier. This practice of the middlemen decreases farmers' revenue. FGD in Kedah indicated that the deduction rate has increased over the last 10 years. Millers used to deduct 2 kg for every 100kg of harvest. It has now increased to 20kg for every 100kg of harvest. These farmers are at the mercy of middlemen because they are dependent on them for pesticides, fertilisers as well as cash loans. Thus, the farmers have no choice but to sell their harvest to the middlemen.

These farmers are frustrated and upset and feel neglected. The government's call for millers to use only government-certified equipment and instruments to determine the quality of paddy sent in by farmers for processing has fallen into deaf ears. The measure was to resolve the long-running "feud" between farmers and millers/middlemen in calculating the percentage of moisture content in paddy.¹⁰⁷

The farmers (11.7 per cent) also suggested that the government should increase its investment in agricultural infrastructure such as irrigation facilities to ensure that their rice fields have adequate water supply. They also recommended that better farm-to-market roads should be built so that they can sell their harvest elsewhere rather than be dependent on the middlemen. Both male and female farmers supported these recommendations.



¹⁰⁷ "Millers urged to use certified equipment", *New Straits Times*, April 7, 2004, cited in Oryza Market Report - Malaysia - April 7, 2004 <http://oryza.com/asia/malaysia/index.shtml>

4.1.8 The Credit Market and Indebtedness among Small-scale farmers

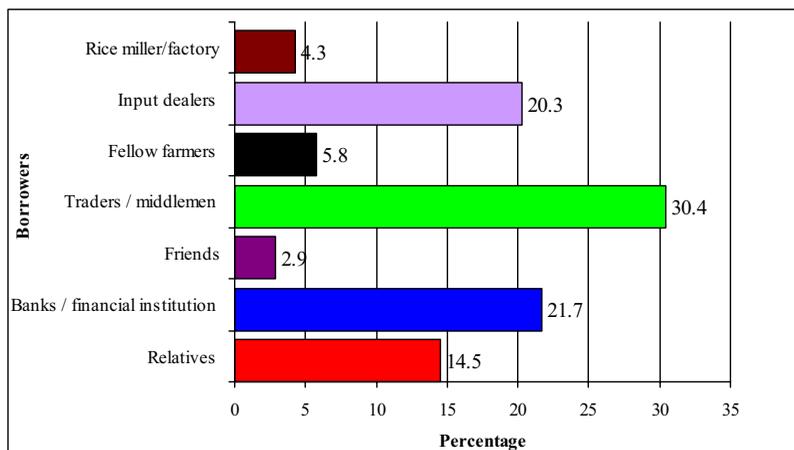


Figure 4.19: Incidence of Borrowing*

Out of the 147 farmers surveyed, 69 responded that they have debts, whereby 30.4 per cent of them borrow from traders, 21.7 per cent from financial institutions, 20.3 per cent from input dealers and 14.5 per cent borrow from relatives (Figure 4.19).

Table 4.5: Reasons for Borrowing*

Reasons for borrowing	%
Capital for production	68.1
Household expenses	21.7
Both for capital and household	18.8
To buy land	1.4
To buy other productive assets	10.1
To pay previous loan	1.4
Emergency / Special events	1.4
Build/repair house	1.4
Total	124.6

As shown in Table 4.5, the main reasons farmers borrow money or obtain loans were to use as capital for production and to pay for household expenses.

* Involves Multiple Responses

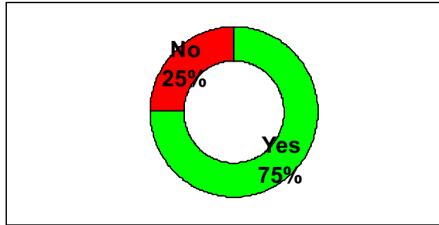


Figure 4.20: Ability to settle loan**

Seventy five per cent of the 69 respondents who have borrowed indicated that they were able to settle their loans within the stipulated period/ loan agreement (Figure 21). Majority (61.5 per cent) of them said the revenue obtained from their rice harvest was used to pay their loans within the stipulated period. Those who were unable to settle their loans within the time period said that their incomes were lower than their production expenses (35.3 per cent), their only source of income was from rice harvest (29.4 per cent) and their household expenditure had also increased. The majority (78.3 per cent) indicated that they borrow two or three times per year** and 66.7 per cent of these farmers have not incurred debts currently compared to five years ago (1999)**. However, a small number of farmers have currently taken more loans because their production cost has increased (52.2 per cent) and their household expenditure has increased (34.8 per cent).¹⁰⁸ These findings are similar to those in 4.1.6.

4.1.9 State Policies and Programmes for Agriculture and Small-scale Farmers

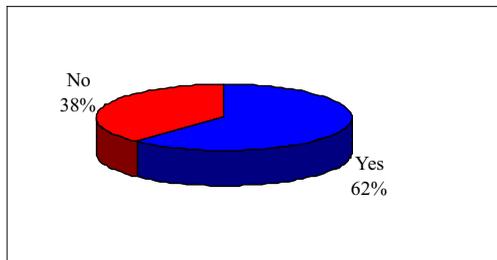


Figure 4.21: Adequate government support

**Total number of respondents is 69.

¹⁰⁸ 33.3 per cent of 69 respondents.

Figure 4.21 shows that most farmers (62 per cent) believed the government has provided adequate support – mainly referring to two main supports, i.e. fertiliser subsidies (81 per cent) and irrigation facilities (41 per cent) – for them while 38 per cent felt otherwise.

Table 4.5: Reasons for inadequate government support*

WHY GOVERNMENT SUPPORT WAS LIMITED	F	%
Small-scale farmers are considered inefficient producers	19	33.9
Farmers do not have influence on government decisions	9	16.1
Limited government budget	4	7.1
Government favours big scale farming/agribusiness	13	23.2
Misallocation of budget	5	8.9
Agriculture is not a priority economic activity	16	28.6
Cash crop is given priority by government	1	1.8
Support does not reach the small farmers	22	39.3
Total	89	158.9

The unhappy group of farmers said government support (i.e. infrastructure) never reached them; government considered them inefficient producers and favoured large-scale farming/agribusiness. Since agriculture was not a priority economic activity, the farmers said they were neglected and marginalised (Table 4.5).

* Involves multiple responses

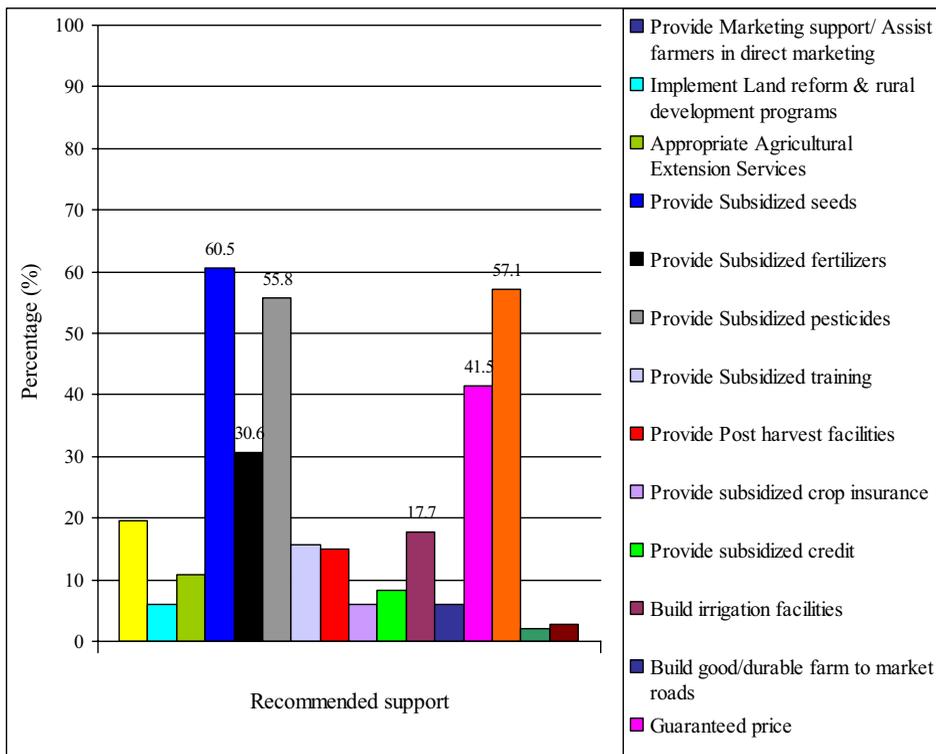


Figure 4.22: Recommended Support by small farmers*

The farmers interviewed indicated that the government should continue to provide them subsidised fertilizers and pesticides, and control prices (see Figure 4.22). They believe they will be able to sustain themselves in the long run and not be phased out if the with the suggestions were implemented.

* Involves multiple responses

4.1.10 Respondents' Awareness of AFTA

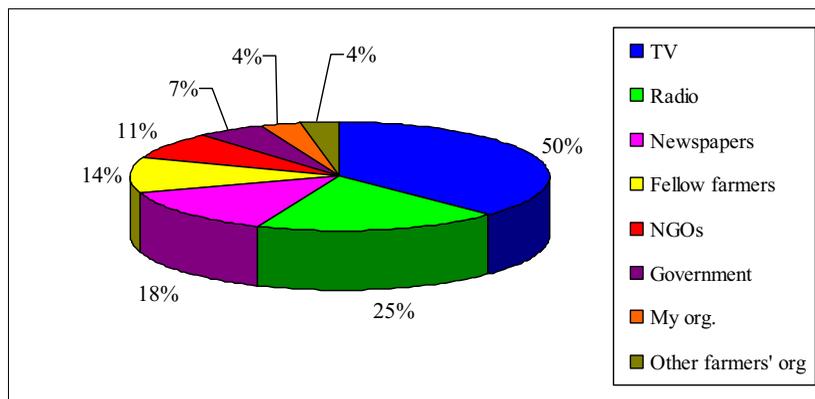


Figure 4.23: Source of AFTA Awareness*

Majority of the respondents (81 per cent) were not aware of the ASEAN Free Trade Area (AFTA) agreement. The 19 per cent¹⁰⁹ who were aware of the agreement heard it mainly from three sources (Figure 4.23), i.e. television, radio and fellow farmers (10.8 per cent). Almost 14 per cent of the 28 farmers read it in the newspapers. However, the majority (57 per cent)¹¹⁰ who heard/read about it had no idea the benefits AFTA would bring while 30 per cent of them said AFTA related to free trade/globalisation and it would create more markets for them to sell their produce. Only 7 per cent of these farmers realised the unpleasant effect of AFTA, i.e. a reduction in the subsidies that they currently enjoyed.

4.1.11 Gender Issues in Agriculture and Trade

Women's participation in the agricultural sector has been the highest in rubber, oil palm and cocoa production.¹¹¹ The misconception and non-recognition of the role of women in agricultural development has gained momentum since the early 1970s. It is gradually being recognised that the role of women in agriculture is important, and that their neglect in development is a major reason why many programmes failed to reach targeted goals.¹¹²

Lack of technical skills is among the reasons given by women paddy farmers for not being involved in mechanical and heavy manual tasks. With the government's recent move in narrowing the digital gap between the urban and rural communities, TaniNet has been introduced. TaniNet's goal is to get the rural farming community to use information and communication technology (ICT) as means of accessing and sharing information and

* Involves multiples responses.

¹⁰⁹ Refers to 28 respondents.

¹¹⁰ Ibid.

¹¹¹ Ministry of Labour (1989). Labor indicators. Kuala Lumpur: Ministry of Labour

¹¹² Roling, N. (1988). *Extension science: Information systems in agricultural development*, Cambridge: Cambridge University Press.

using on line services. It is also to familiarise them with the advances in biotechnology and their applicability in the Malaysian agricultural context.¹¹³ With this in mind, would it be fair to assume that once women farmers were equipped with the latest and up-to-date ICT tools along with the technical know-how of operating machineries, they would be given a prominent role to play in the agricultural sector (with the exception of the tobacco industry, horticultural crop production and small scale food processing sector where women are heavily involved) as compared to the docile role they play currently? The government should in fact create stimulating and hassle-free environment for women farmers to venture into ICT so that their full potential as agriculture and household producers are achievable. Policies that fail to focus on gender factors should be looked into and improvised for the betterment of society in general and women farmers specifically.

Contributions of women to agriculture is important and if it is not recognised, it could lead to their exclusion as project beneficiaries, as well as deny them access to appropriate technology, extension services, and training, thus depriving them of the chance to achieve their full potential.

4.1.12 Summary of Research Findings

Rice farmers belong to an aging population, in the age group of 51 and above, and generally, they are educated. Most farmers are married and both husband and wife owned their respective homes. The house structures are permanent in nature, i.e. galvanized roof and most of the houses are equipped with modern toilet facilities, i.e. flush type toilet. There are four to seven members in each house and the majority of the farmers have three to five children. The surveyed villages have water and electricity facilities. The primary roads in the villages are tarred. Majority of rice farmers are owner cultivators of their rice plots, which they inherited from their parents and husbands for those who are widowed. Although the average land size cultivated is 1.64 hectare, the majority of farmers till 0.5-1.49ha. The tilled land are in the lowlands. Thus, they are dependent on water supplied *via* irrigation. Just like their counterparts in other ASEAN countries, these farmers harvest their paddy twice yearly. High Yielding Variety seeds are supplied by local agricultural authorities to these rice farmers.

The majority of the rice farmers are dependent on the agriculture sector to feed and clothe themselves and their families. Although the net income of most farmers fall into an income bracket of US\$51 – US\$150, 36.7 per cent of them earn between US\$51 – US\$100, which is below the poverty line. Since, the earning capacity of an individual farmer is insufficient to sustain himself or his family, the farmer/s tend to depend on other family members, i.e. wife and older children, to increase the household income. These members of the family work in factories, perform tailoring activities or make and sell delicacies. In spite of the additional sources of income from other family members, 33.3 per cent of rice farmers' households still fall into the low income bracket.

Farmers are not reaping the fruits of their hard work compared to retailers. This is because although the farm gate paddy price has decreased over the last five years, the retail price of rice has increased. Traders set low prices on farmers' harvest because they

¹¹³Shamsul Bahar Abdul Kadir (2000). TaniNet: An Internet-based System for the Agricultural Community, <http://www.taninet.com.my> (accessed on Aug 31, 2000).

claim that the harvested paddy has high moisture content. Poor government policy in regulating the paddy price, increased in rice imports and inadequate subsidies are some of the possible reasons for the decreased in the farm gate paddy price. Most farmers sell their harvest to traders because they are trapped in a vicious cycle.

Traders are willing to provide farmers quick loans without requesting collaterals unlike the financial institutions. The traders' only loan condition is that the farmers must sell their harvest to them in order to subtract their debts. With low incomes coupled with high production and household expenses, farmers are always short on money. By borrowing from traders, the farmers believe that their financial misery is fixed. The farmers continue to borrow money for the purpose of rice production and household expenses. They stipulate that they can settle their loans within the agreed repayment period.

Most rice farmers are not aware whether their harvest is exported. Natural disasters/calamity is the biggest problem farmers faced, followed by high production expenses. Natural disasters inadvertently cause rice fields to face water problems. High input costs such as pesticides and fertilisers contribute to the high expenditure in rice production. To overcome these problems, the farmers recommended that prices of input should be controlled, domestic subsidies should be increased, paddy price should be guaranteed and infrastructure facilities should be improvised or upgraded.

Generally, the majority of the farmers are happy with the support provided by the government. However, some voiced their dissatisfaction by indicating that government support never reached them. They believe that the government treats them as inefficient producers, mainly because agriculture is not a priority area in the state budget. Hence, they feel left out in government policies.

The majority of the paddy farmers are not aware of AFTA. Those who are aware of it received the information from television, radio and fellow farmers, while a few read about it in the newspapers. Nevertheless, these rice producers have no idea of the effects of AFTA on them.

4.1.13 Limitations of the Research

The rice research covered only small producers i.e. farmers tilling three hectares and below.

4.1.14 Recommendations

The government's move in identifying the agriculture sector as the third engine of economic growth is commendable. However, merely providing emphasis and due attention are inadequate. Regardless of a country's stage of development, food production should always remain a top priority in ensuring food security. Malaysia's food import bill is a clear example of the agriculture's sector growth, or lack thereof. It has been escalating for many years now as Malaysia has become comfortable in depending on other countries for food supply. Malaysia has become an importer of rice, meat, fruits and vegetables, i.e. food which constitutes our daily diet. Although, rice is the staple food of its population, Malaysia's paddy fields only produce 70 per cent of the rice requirements.¹¹⁴

¹¹⁴ Anonymous, Food Security in Corporate Agriculture 2003/04 directory, Kuala Lumpur: Telekom Publications Sdn Bhd, p. 21.

Strategies need to be engineered, laws have to be reformed, priorities should be reset and, most importantly, human resource must be developed before the agricultural sector can contribute significantly to the country's economic growth. All sectors of society, i.e. government agencies, private businesses and consumers, need to strive harder and play a bigger role in reducing Malaysia's food import bill while increasing its exports, thereby accelerating the growth of the agriculture sector.

To enhance the growth of the agriculture sector, mainly the rice industry, the government should find ways to assist small farmers as they constitute the majority of the Malaysian rice growers. Typically, adverse price movements or new policies directly affect small-scale farmers. Instead of focusing on modernising paddy production *via* promoting large scale mixed farming, encouraging the use of modern technology and management or forcing these farmers to partake in commercial and agribusiness undertakings in the name of trade liberalisation or globalisation, the government should first concentrate on building the capacities of these farmers. The state should not be signatories to trade agreements that compromise the rights and livelihood of small farmers.

Specifically, Malaysia should take the following steps to protect its agricultural sector generally and the rice industry specifically from any adverse effects after the full implementation of AFTA:

- Establish a relief fund to assist small-scale rice farmers from natural disasters;
- Continue to provide fertiliser and price support to small-scale rice farmers to ensure food security;
- Enforce the certification of calibrated equipment and instrument in determining the paddy moisture content;
- Create a hassle free environment in obtaining farm loans from local banks and financial institutions, and expedite the processing of these loans;
- Improve channels for agricultural and industrial research and extensions services to bring new technology to the small-scale rice farmers;
- Build/improve infrastructures so that small rice farmers can directly market their produce.

4.2 Presentation of Results - Fisheries

4.2.1 Demographic Characteristics of Respondents and their Households

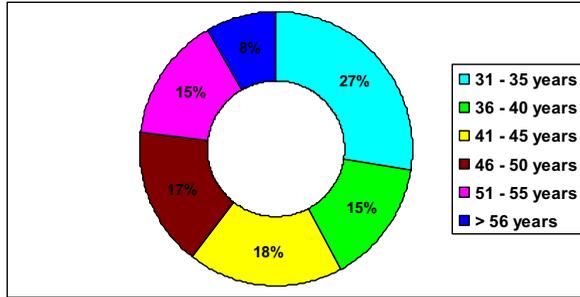


Figure 4.24: Respondents' Age

Of the 109 fisher folk interviewed, about 27 per cent were between 31 and 35 years while 18 per cent fell into the 41 to 45 years age group.

A total of 71 respondents were men and 38 were women. Almost 92 per cent of the respondents were married.

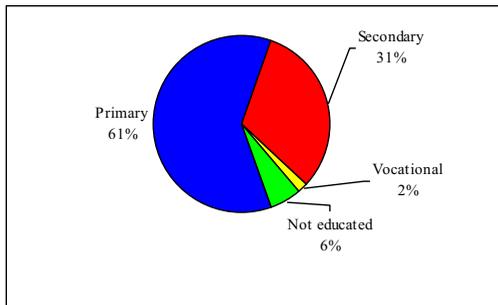


Figure 4.25: Education Attainment

About 60 per cent of the fisher folk had a minimum primary education and about 31 per cent had attended secondary school.

Table 4.6: Number of Household Members

Number of Household Members	Number of Responses	Percentage (%)
1	-	
2	2	1.8
3	8	7.3
4	15	13.8
5	23	21.1
6	16	14.7
7	20	18.3
8	9	8.3
9	8	7.3
10	5	4.6
More than 10	3	2.8
TOTAL	109	100.0

Almost 70 per cent of the respondents have between four and seven members in a household.

Table 4.7: Number of Children

Number of Children	Number of Responses	Percentage
None	4	3.7
1	9	8.3
2	14	12.8
3	20	18.3
4	19	17.4
5	18	16.5
6	11	10.1
7	5	4.6
8	6	5.5
9	1	.9
10	2	1.8
TOTAL	109	100.0

Seventy five per cent of the respondents have between two and six children.

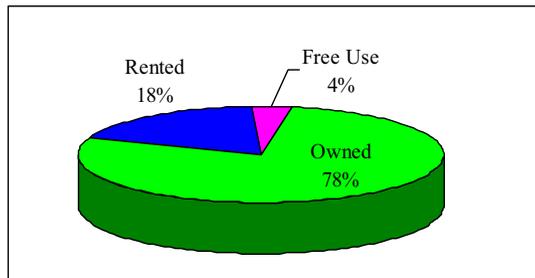


Figure 4.26: Ownership of House

The majority of the respondents (78 per cent) in the various villages owned houses while a few paid regular house rentals. Only a small percentage dwelled in rent-free houses. The house ownership pattern is: joint ownership (30.3 per cent), wife (4.6 per cent), husband (21.1 per cent) and parents (19.3 per cent). The 18.3 per cent who did not own houses appeared to be renting from the land owner. In general, a high percentage of the fisher folk own houses. The survey showed that they lived mainly in permanent structures (66 per cent), i.e. houses built with concrete and galvanized roofs.

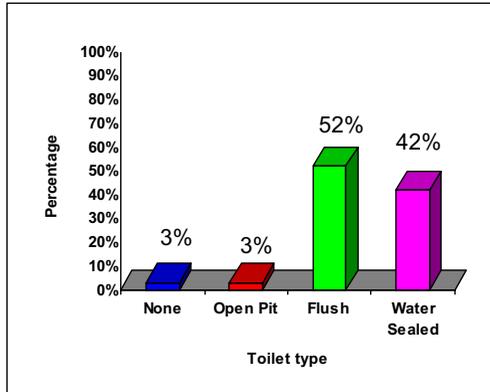


Figure 4.27: Toilet Facilities

As shown in Figure 4.27, 52 per cent of houses, owned or rented by the respondents, were equipped with flush-type toilets while 42 per cent have water sealed toilets.

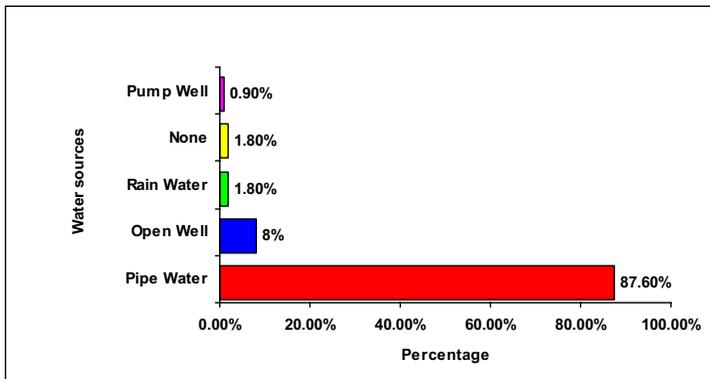


Figure 4.28: Sources of Drinking Water

In all the villages studied, the respondents commonly used treated piped water for drinking, washing and other purposes, supplied by the state authorities. The other sources of water are open well, pump well and rain.

All the respondents' houses had electricity, supplied by the privatised power company Tenaga Nasional Berhad (TNB).

The majority of primary roads in the villages were tarred while the secondary roads were either tarred or dirt paths.

4.2.2 Type Of Fisher Folk And Equipment Ownership

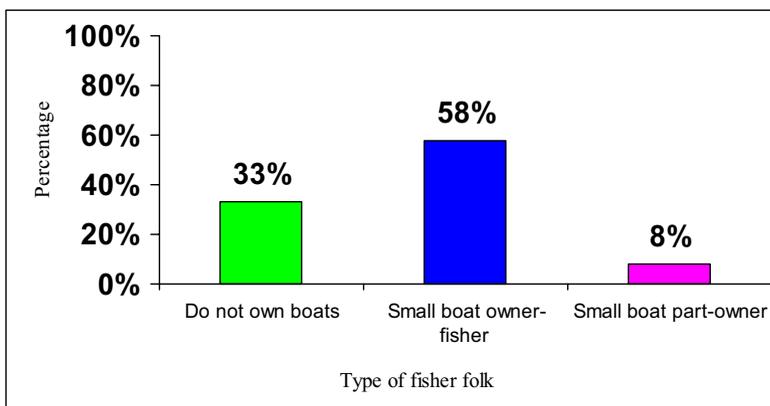


Figure 4.29: Type of fisher folk

The majority of respondents (57.8 per cent) were small scale fisher folk who owned their boats while 33 per cent did not own boats.

Table 4.8: Acquisition mode of Fishing Equipment *

FISHING EQUIPMENT	MODE OF ACQUISITION			
	Bought (%)	Inherited (%)	Rented (%)	Others (%)
Small boat/vessel (non powered, of 10 gross tonnes and less)	1	-	1	-
Small Boat/vessel (outboard – powered of 10 gross tonnes & less)	47	4	17	1
Small Boat/vessel (inboard – powered of 10 gross tonnes & less)	9	1	2	-
Pole, hook and line	7	1		2
Trawl nets	4	-	5	-
Anchovy Purse Seines	3	-	1	
Drift/gill nets	37	-	11	4
Lift nets	3	-	-	-
Stationary nets	2	-	-	1
Portable traps	4	-	-	-
TOTAL	117	6	37	8

* Involves multiple responses

The most common fishing equipment acquired by the fisher folk was the small outboard powered boat/vessel of 10 gross tonnes and less (Table 4.8). On the average, the boat size of most fisher folk (43 per cent) studied is one tonne (Table 4.9). Majority of the respondents bought the vessels. The second most acquired fishing equipment is drift/gill nets, where respondents bought (37 per cent), rented (11 per cent), acquired it through mortgage or bought the fishing rights (4 per cent).

Table 4.9: Average Boat Size

BOAT SIZE (t)	Responses (%)
1	43.1
1.1 - 2	4.6
3.1 - 4	1.8
4.1 - 5	6.4
5.1 - 6	1.8
6.1 - 7	11
7.1 - 8	11.9
8.1 - 9	12.8
9.1 - 10	6.4
Total	100

4.2.3 Fishing Production and Expenses

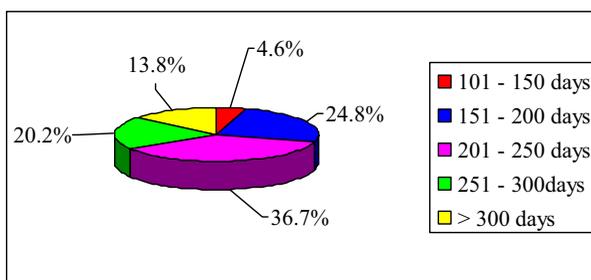


Figure 4.30: Average number of fishing days in a year

Majority of the fisher folk (95.5 per cent) in Malaysia go out fishing more than 150 days in a year. Thirty seven per cent of the respondents fish an average of 201 – 250 days, 25 per cent fish an average of 151 – 200 days, 20 per cent fish an average of 251 – 300 days, 14 per cent fish an average of more than 300 days and a minority of the fisher folk (5 per cent) go out fishing for 101 – 150 days in a year.

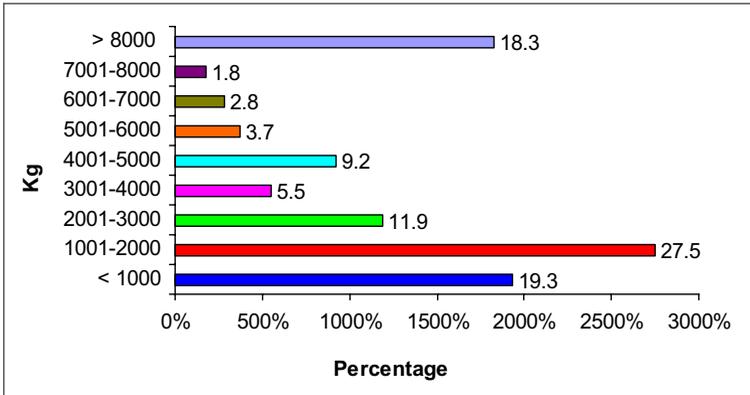


Figure 4.31: Average amount of fish caught in a year

The majority of the fisher folk (46.8 per cent) catch about 1,000 to 2,000 kg of fishes in a year. The fisher folk who participated in the Focus Group Discussion in the Tanjung Dawai fishing villages said their income was uncertain and low because their catch was unpredictable. They pointed out that even if they were in the sea for three days, they could still return home empty handed.

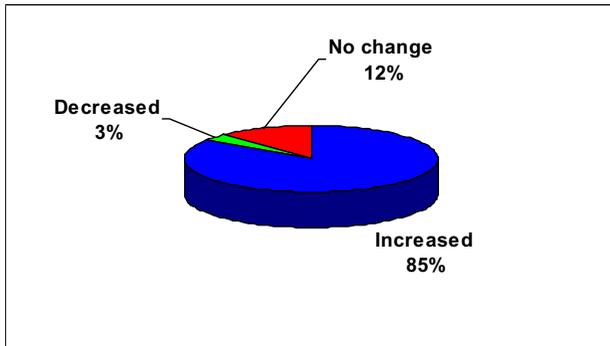


Figure 4.32: Operation expenses of the fisher folk

Majority of the fisher folk (75 per cent) said their current operation expenses have increased compared to five years ago (Figure 4.32). The operation expenses include fuel, engine oil, fish food/bait, refrigeration facilities, nets, traps and maintenance of boat.

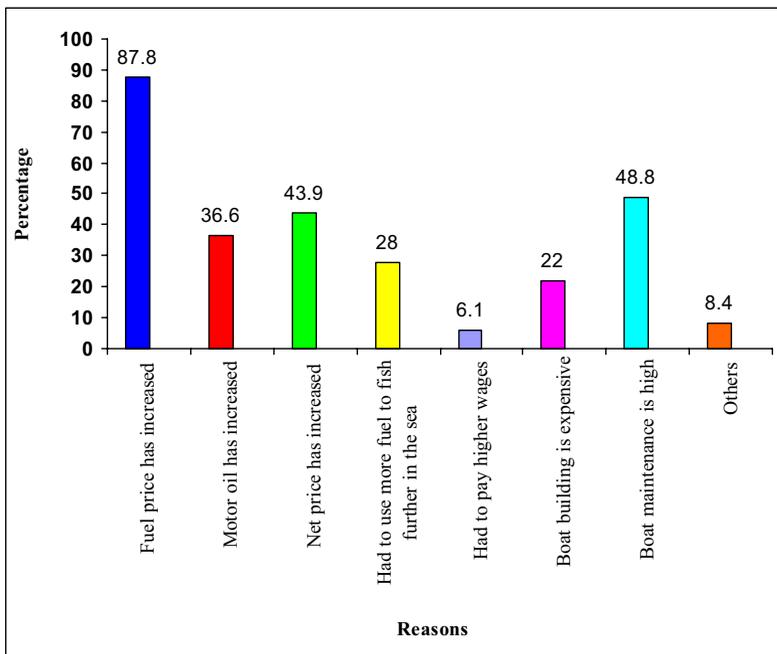


Figure 4.33: Reasons on the increase in operation cost*

Higher operating expenses is mainly due to the increase in the prices of fuel, motor oil and nets and the cost of boat maintenance (Figure 4.33).

4.2.4 Fishing Income

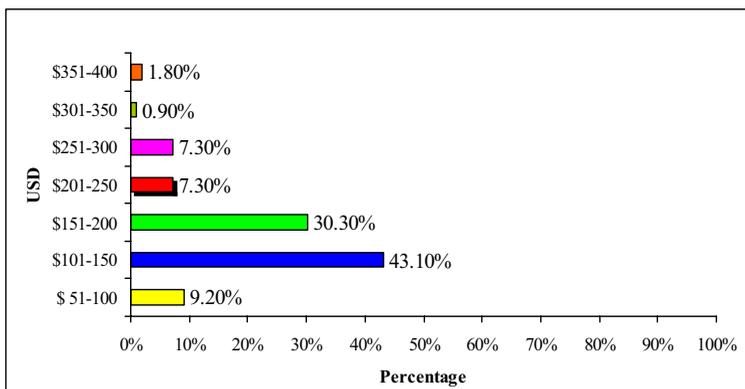


Figure 4.34: Monthly net income of respondents

* Involves multiple responses.

The major source of income for the majority of the respondents (73 per cent) was from fishing related activities while 27 per cent earned their income from other sectors. Figure 4.34 shows that the monthly net income of the majority of the fisher folk was in the US\$101 to US\$150 bracket, while 30 per cent of them had a monthly income of US\$151 to US\$200. Thus, it can be deduced that 73 per cent of the respondents have a monthly income of US\$101-US\$200.

The fisher folk who participated in the FGD in Tanjung Dawai, Perak, indicated that their income was unpredictable, uncertain and low because their catch itself was unpredictable. The fishermen pointed out that they can be out in the sea for three days and yet return home empty handed or with minimum catch. The small catch was possibly due to the depletion in fish resources caused mainly by trawlers and big scale operators who had to increase their catch effort to maintain a level of production that ensured profits. Over exploitation/fishing has resulted in the degradation of landing quality (grade), thus lowering the income of fishing communities.¹¹⁵ Rough seas and frequent engine breakdowns are common reasons for fewer trips to sea, resulting in low monthly income.¹¹⁶

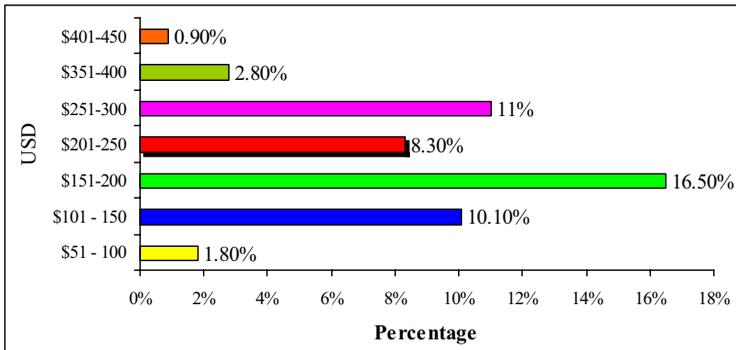


Figure 4.35: Monthly household net income of respondents*

The monthly household net income of 46 per cent of the respondents' was in the US\$101-US\$300 bracket, of which 10.1 per cent earned between US\$101 and US\$150, 16.5 per cent between US\$151 and US\$200, 8.3 per cent between US\$ 201 and US\$250, and 11 per cent between US\$251 and US\$300 (Figure 4.35).

¹¹⁵ Raja Mohammed Noordin. (1994). Status of the Fisheries Sector in Malaysia, paper presented at the National Seminar on the Contribution of the Maritime Sector to the National Economy, Maritime Institute of Malaysia, Kuala Lumpur.

¹¹⁶ Siason et al., 2002, p. 209.

* 48.6 per cent of respondents did not provide their net incomes and there were no responses for income bracket of US\$1 to US\$50.

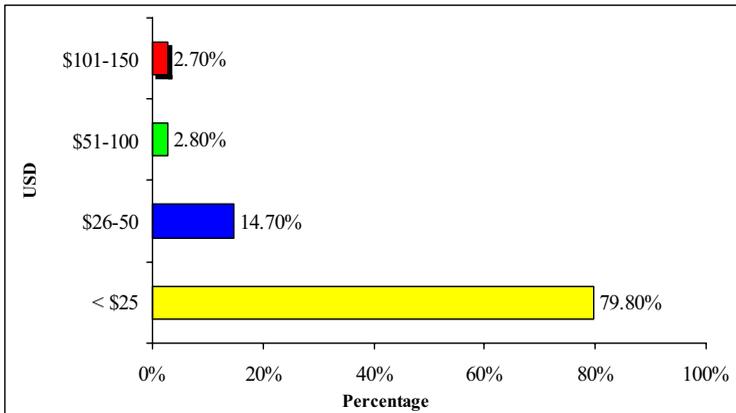


Figure 4.36: Respondent's net income from fishing per day

The daily net income from fishing for 80 per cent of the respondents was less than US\$25 while 15 per cent earned a daily income of between US\$26 and US\$50 (Figure 4.36). During the FGD session in Tanjung Dawai, the fisher folk proposed ways to improve their income and make their catch more sustainable. They suggested that ICT tools should be introduced in the fishing industry as technology could assist the fisher folk track the movement of fishes in the sea. This would allow for larger fish catchments and more efficient use of time in the sea. In addition, the fisher folk indicated that the government should have enough stock of fish to regulate the fish price. The government should set up a national centre to inform fisher folk on the prices of fish locally and regionally. A price information centre could be a strategy to compete effectively in a competitive AFTA environment.

4.2.5 Prices and Markets

Table 4.10: Fish prices

Price/kg	Indian Mackerel		Ray		Chinese Silver Pomfret	
	1999 (USD)	2004 (USD)	1999 (USD)	2004 (USD)	1999 (USD)	2004 (USD)
Seashore	0.40	0.49	1.15	1.49	10.69	11.30
Wholesale	0.67	0.77	1.8	2.08	12	12.54
Retail	0.92	1.08	2.15	2.40	13.18	13.74

The top three fishes caught by the fisher folk in this study were Indian Mackerel (40 per cent), Ray (10 per cent) and Chinese Silver Pomfret (10 per cent). Table 4.10 shows the seashore, wholesale and retail prices of the three fishes. Although their prices have gone up over the last five years, the most significant price increase occurred at the retail sector. In 2004, there was a 120 per cent price difference between Indian Mackerel bought at the seashore and at retail outlets. In 1999, the difference in seashore and retail price was US\$0.52.

The difference in seashore and retail prices for the Ray fish has decreased in 1999 and 2004. In 1999, retailers were selling Ray fish at a mark up price of 87 per cent compared to seashore prices. In 2004, they were charging 61 per cent higher than the seashore price for the same fish. With more Malaysians becoming diet conscious, many prefer to grill fish and Ray is their choice item. It has a certain texture and aroma which Malaysians adore. The increase in the price of the Indian Mackerel was probably because the demand for this fish is higher than its supply. Malaysians are consuming this species because it is the cheapest among all fishes. The Chinese Silver Pomfret is consumed by high end consumers

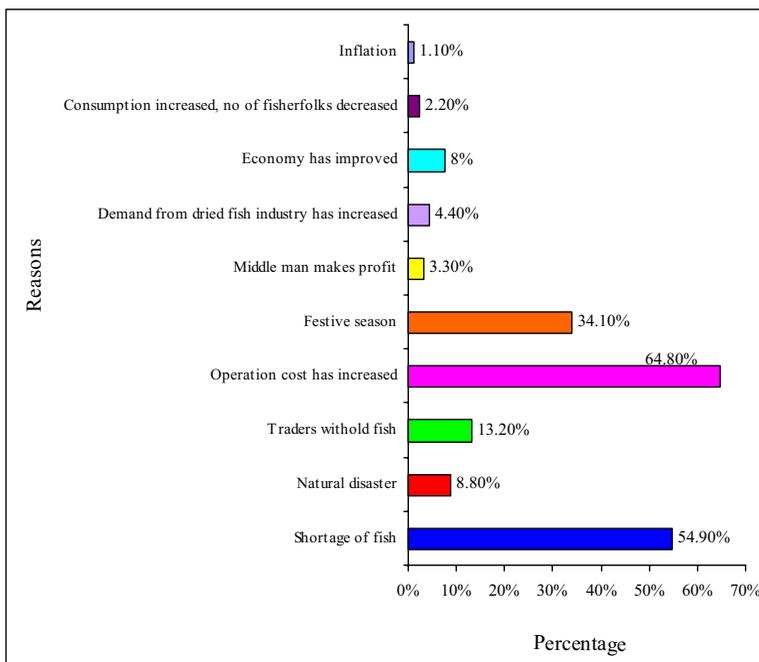


Figure 4.37: Reasons for seashore price increase*

* Involves multiple responses.

According to the respondents, many factors contributed to the increase in the seashore prices of these fishes. Among them were operations costs (64.80 per cent), shortage of fish in the market (54.9 per cent) and high demand during the festive seasons (34.10 per cent).

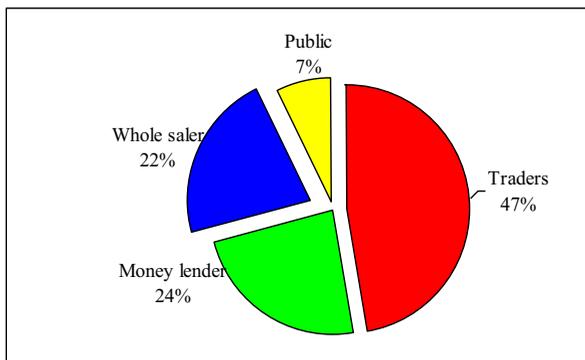


Figure 4.38: Fish buyers

Generally, the fisher folk interviewed for this research said they sold their catch to more than one buyer. Figure 4.38 shows that most buyers are traders, followed by moneylenders, wholesalers and consumers.

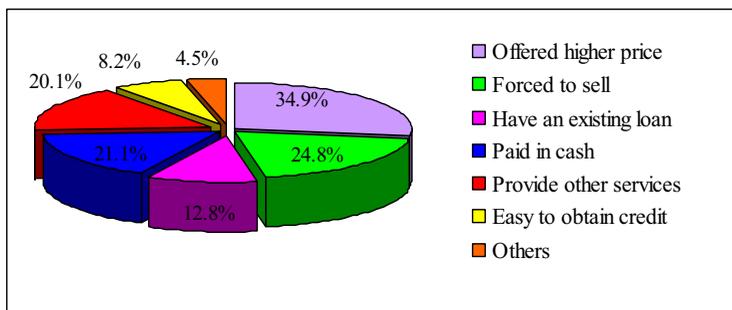


Figure 4.39: The fisher folk's reasons to sell their catch to specific buyers*

Fisher folk sell their catch to these players for various reasons. Among them were they were offered high prices; they were forced to sell to traders, moneylenders and wholesalers due to existing debts; these players pay in cash; and these buyers provided marketing and other services (Figure 4.39). Bulk-buying and direct dealing with the fisher folk and the growth of the large wholesale trade has considerably reduced the role of small fish traders. With the construction of modern landing and marketing complexes and the introduction of fish auction, the functions performed by small fish traders and dealers

* Involves multiple responses.

are being phased out. This development has displaced women fisher folk, who used to be the main players in fish trading and marketing. Currently, women fisher folk are not seen in fish landing complexes. Before the coming of middle men, the women fisher folk performed the task of cleaning the fishes and selling them to inland markets at a higher price compared to the seashore price. Although the fish was sold at a higher price in the market compared to the seashore price, the petty distribution and marketing functions undertaken by the women fish traders ensured low cost services for the fisher folk and affordable prices for consumers.¹¹⁷

4.2.6 Problems of small-scale fisher folk

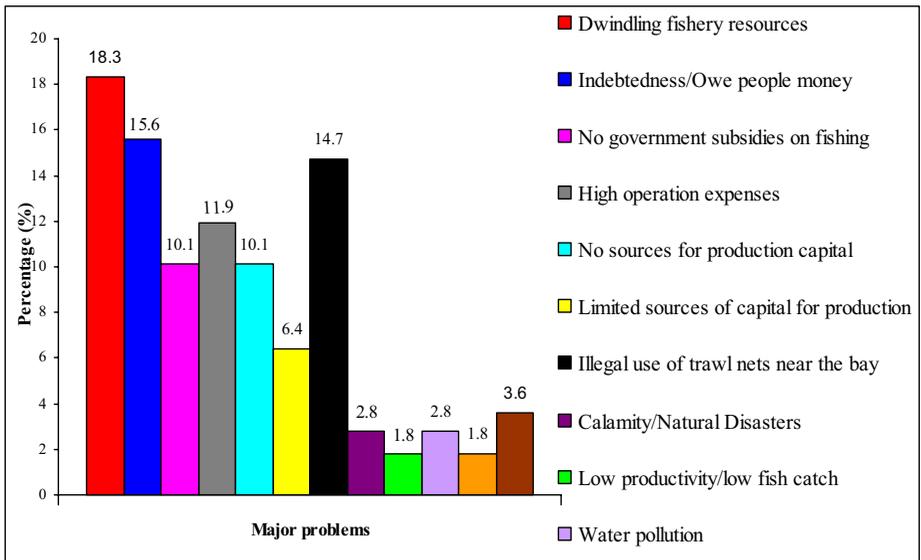


Figure 4.40: Major problems faced by small scale fisher folk

Figure 4.40 indicates the problems faced by small-scale fisher folk. The major problem identified (18.3 per cent) was the drop in their catches over the years due to dwindling fishery resources. This reflects the commonly mentioned fact that inshore Malaysian waters have been fully exploited.¹¹⁸ Misguided infrastructural development, the clearing of swamps and the building of industries close to traditional fishing grounds have destroyed fish spawning areas and denied fishing communities' easy access to rivers and seas. Other economic expansion activities have also contributed to the depletion of fish stock. Water pollution due to the excessive use of fertilisers, pesticides and weed killers has also affected fishery resources.¹¹⁹

¹¹⁷ Yahaya, J. (2001). Women in Small-Scale Fisheries in Malaysia. In William, M.J., M.C. Nandeesha, V.P. Corall, E.Tech and P.S. Choo (eds.), Proceedings of the International Symposium on Women in Asian Fisheries: Fifth Asian Fisheries Forum, Nov 13, 1998, Chiang Mai (Thailand): Asian Fisheries Society, p. 1

¹¹⁸ Raja Mohammad Noordin, 1994, op. cit.

¹¹⁹ Lim Teck Ghee (Undated). Conflict Over Natural Resources in Malaysia: The Struggle of Small Scale Fishermen. <http://www.unu.edu/unupress/unupbooks/80a04e/80A04EOc.htm>

Over fishing is defined as catches that were exceeding the maximum sustainable yield of sea species. It has also led to depletion of resources, partly because of the increase in the number of trawler boats fishing in inshore waters. The illegal use of small-mesh nets has also resulted in a high proportion of the young marine-life being caught in the nets.¹²⁰

The destruction of mangrove swamps has also contributed to dwindling fishery resources. The connection between mangroves and fisheries has been well documented. It is widely recognised that mangroves play an important role in sustaining the productivity of coastal fisheries.¹²¹ Tropical mangroves are the among the world's most important ecosystems. Mangroves provide ideal nursery, breeding and feeding areas for many economically important species of fish and prawns. In fact, many fish and prawns are dependent on mangrove forests for the completion of their life-cycle, mostly during their juvenile stage. It is also believed that mangroves contribute a substantial amount of nutrients, enriching coastal areas. Mangrove forests thus have important ecological functions for near coastal and offshore fisheries.¹²² Unfortunately, Malaysia has lost 30 per cent of its mangroves to fish and shrimp ponds.¹²³ Every acre of mangrove forest destroyed results in an estimated loss of 676 pounds of marine harvest.¹²⁴ Mangroves swamps are disappearing mainly because of the expansion of aquaculture farms, construction of hotels, coastal highways, housing and commercial development.¹²⁵

Indebtedness was the second major problem affecting fisher folk (15.6 per cent), followed by illegal use of trawl nets near the bay (14.7 per cent). The Fisheries Act specifies that trawl nets can only be used in waters beyond five nautical miles from the coast,¹²⁶ i.e. for deep sea fishing by commercial operators. However, they have encroached into the fishing territories of the small-scale fisher folk and their trawl nets have swept all sea creatures and destroyed the seabed within five nautical miles from the shore because of a lack of enforcement by the authorities.

The United Nations Population Fund (UNPF) has indicated that over two thirds of the world's commercial marine fish stocks have been fully exploited, over-fished, depleted, or are slowly recovering. With a rising world population, the demand for fish supplies has increased tremendously. This has led to a shift to large-scale harvest methods, with some operators using destructive fishing practices.¹²⁷ The FGD discussions with fisher folk indicated that richer fishermen have always used big boats. They noted that the number of companies using big boats and hiring foreign workers has increased.

¹²⁰ *Ibid.*

¹²¹ Sasekumar, A., Chong, V.C., Leh, M.U., and D'ruz, R. (1992). Mangrove as a habitat for fish and prawns, *Hydrobiologia*, 247: 195-207.

¹²² United Nations Environment Programme East Asian Seas Regional Coordinating Unit. (1998). National Report of Malaysia on the Formulation of a Transboundary Diagnostic Analysis and Preliminary Framework of a Strategic Action Programme for the South China Sea, p. 36.

¹²³ Torell, Magnus, Salamanca, Albert M. (2001). Navigating the Institutional Landscape: Introduction and Overview. In Magnus Torell and Albert M Salamanca (eds.), *Institutional Issues and Perspectives in the Management of Fisheries and Coastal Resources in Southeast Asia*, Penang: ICLARM – The World Fish Centre, Stockholm: Swedish International Development Cooperation Agency (Sida), p. 1.

¹²⁴ Devinder Sharma. Tsunami, mangroves and the market economy, *Third World Resurgence*, No 173/174.

¹²⁵ Chee Yoke Heong. Powerful Mangroves, *Third World Resurgence*, No 173/174.

¹²⁶ K.Kuperan Visvwanathan, Nik Mustapha Raja Abdullah, Indah Susilowati, Ida M. Siason and Cynthia Ticao. Enforcement and Compliance with Fisheries Regulations in Malaysia, Indonesia and the Philippines. Proceedings of the International Workshop on Fisheries Co-management.

¹²⁷ Food and Water: Can We Meet Increasing Demand? United Nations Population Fund.

<http://www.worldhunger.org/articles/phn/unfparpt2001.htm>

According to the United Nations Environmental Protection Programme (UNEP), destructive fishing methods are a threat to marine life. They not only remove too much resource quickly, but they also damage the habitat essential to the growth, survival and reproduction of resources.¹²⁸ Examples of these methods are trawling, muroami, bomb and cyanide fishing.¹²⁹ Trawling has the same effect as the clearing of forest that threatened the biological diversity and economic sustainability. Trawling in shallow water tend to indiscriminately scoop young fish and destroy essential fish habitats like sea grass, mangrove and other sessile organism (e.g. sponges, tunicates and corals).¹³⁰ These habitats are important as they stabilise shorelines by acting as effective buffer zones, reduce wave energy, export nutrients to nearby ecosystems, and provide nursery grounds for many marine organisms.¹³¹

The top three common problems faced by the fisher folk are high operation cost (54 per cent), no subsidy for fishing activities (44 per cent) and indebtedness (39 per cent).*

¹²⁸ Staff Training Materials for Management of Marine Protected Areas, edited by Richard Kenchington and Ch'ng Kim Looi. Regional Coordinating Unit East Asian Seas Action Plan. United Nations Environment Protection Program, 1994.

¹²⁹ Zahaitun Mahani Zakariah. Destructive Fishing in Malaysia: The Need for Local Participation in Fisheries Management. <http://www.mfrdmd.org.my/publications/Draft%20NPOA%20Shark%20Final%20February%20202205.pdf>

¹³⁰ Les Waitling and Elliot A. Norse. Disturbance of the Seabed by Mobile Fishing Gear: Comparison with Forest Clear Cutting. *Conservation Biology*, 12:1180-1197.

<http://www.iscea.or.id/seaspan/0199/MC010711.htm>

¹³¹ Costanza, R. et al. (1997). The value of the world's ecosystem services and natural capital, *Nature*, 387: 253-260.

* Involves multiple responses.

4.2.7. Recommendations to overcome problems of small-scale fisher folk

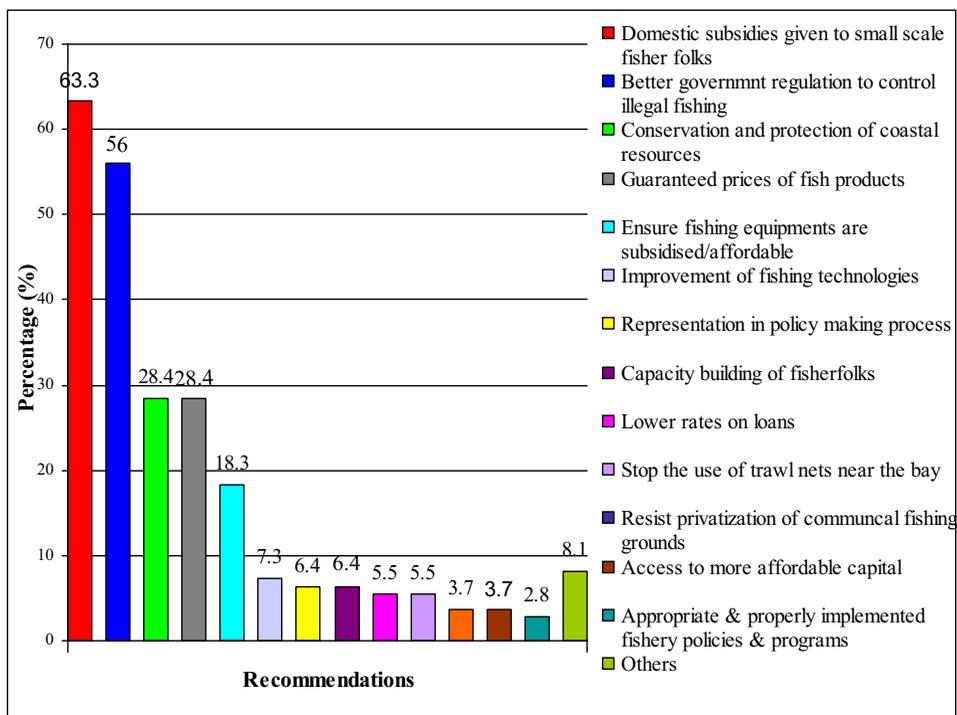


Figure 4.41: Suggestions to overcome problems*

As for recommendations, the majority of the fisher folk (63.3 per cent) felt that domestic subsidies should be given to them. With the increase in operation costs, the fisher folk have gone deeper into debts. They believe subsidies will provide them a safety net and be an incentive for them to continue with their fishing activities and not venture into other sectors of the economy. Subsidies could also reduce the number of fisher folk facing debt problem. Most fisher folk (56 per cent) suggested that the government should strictly enforce the regulations in order to prevent illegal fishing activities. They also recommended that high priority should be given to the conservation and protection of coastal resources (28.4 per cent).

Strong government intervention is also required in regulating relationships between the small inshore fisher folk and trawler fishermen. The fisher folks have requested for guaranteed fish prices (28.4 per cent) to overcome the problem of price fluctuation. With guaranteed fish prices, they would not be forced or be obligated to sell at a lower price to the wholesalers and money lenders in order to settle their debts.

* Involves multiple responses.

4.2.8 The credit market and indebtedness among small-scale fisher folk

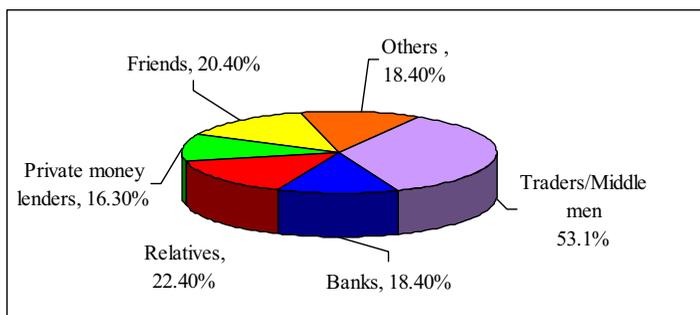


Figure 4.42: Incidence of Borrowing*

Out of 109 fisher folks surveyed, 49 responded that they have debts where 53.1% of them borrow from traders/middlemen, 22.4% borrow from relatives, 20.4% borrow from friends and 18.4% borrow from banks/financial institutions.

The fish industry in Malaysia has access to formal and informal sources of credit such as special agricultural credit scheme (SACS) and fund for food scheme (3F Scheme). The Malaysian Agricultural Bank administers both credit schemes. SACS was established in 1986 and provides financial assistance to fishers for adoption of new technologies, embarking on projects on a commercial scale and for value-added activities downstream. The 3F Scheme is for increasing domestic food production and to enhance the process of substitution for food products¹³².

Figure 4.43: Reasons for borrowing*

* Involves multiple responses

¹³² Anonymous. Component 2 – Analyses of Policies, Institutions and Support Services: Institutions and Support Services of the Malaysian Fisheries Sector. Strategies and Options for Increasing and Sustaining Fisheries and Aquaculture Production to Benefit the Poor Households in Asia. Fish Supply and Demand in Asia: Progress Report 2002.

http://www.worldfishcenter.org/demandsupply/inception_reportaug02/ir_aug02_apsi_issfs_malaysia.asp

As shown in Figure 4.43, the top reasons why the fisher folk borrow money are to buy boats and other fishing gears (44.9 per cent), capital for production (28.6 per cent), and for household expenses, children's education and emergency/special events such as weddings and funerals (22.4 per cent).

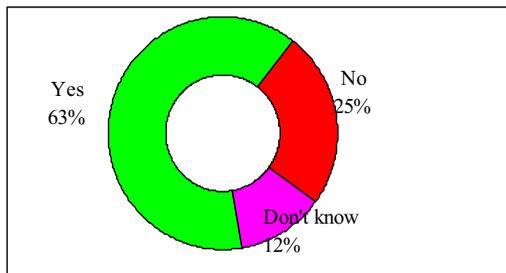


Figure 4.44: Ability to settle loan*

Sixty three per cent of the 49 respondents who had debts said they settled their loans within the stipulated loan agreement period. Majority of them (14.3 per cent) said could do so because they serviced their loans monthly, while another 12.2 per cent worked extra hard to pay back their loans. The fisher folk (37 per cent) who could not settle their loans within the stipulated time said their income was not guaranteed and their situation differed from time to time. Hence they service their loans whenever they could.

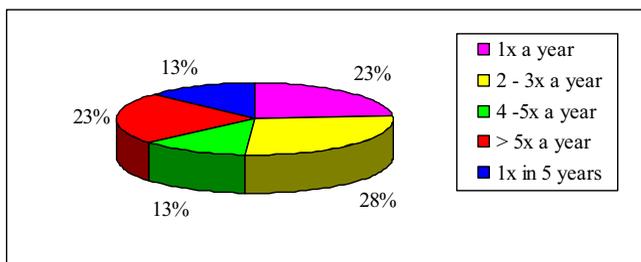


Figure 4.45: Frequency of borrowing*

About 28 per cent of the respondents with debts said they borrowed two or three times in a year, 23 per cent borrow six or more times a year and 23 per cent borrowed once a year (Figure 4.45). Thus, the majority of the fisher folk borrowed more than once a year.

* Involves 49 respondents.

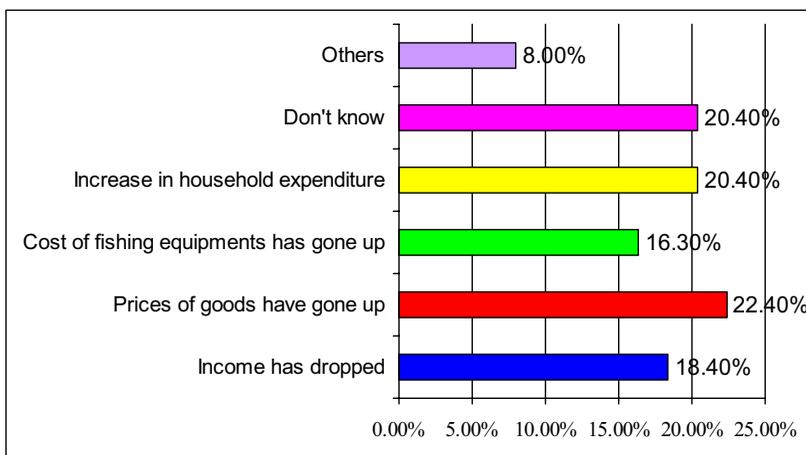


Figure 4.46: Reasons for taking more loans*

The majority of these fisher folk (71.4 per cent) have incurred more debts now compared to five years ago (1999).^{*} The reasons cited for the debts are prices of good have gone up, household expenditure has increased and their incomes have dropped (Figure 4.46).

4.2.9 State policies and programmes for agriculture and small-scale fisher folk

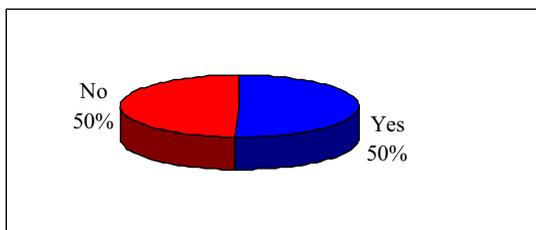


Figure 4.4: Adequate government support

Figure 4.47 shows that the fisher folk were evenly divided over government support, 50 per cent felt the government provided adequate assistance while the other 50 per cent said the support was inadequate.

^{*} Involves multiple responses

Table 4.11: Reasons fisher folks felt government provided adequate support*

REASONS ON ADEQUATE GOVERNMENT SUPPORT	%
Price support	41.8
Marketing support	30.9
Special loans for fisher folk	49.1
Appropriate fishery laws and programmes	20
Training programmes	3.6
Subsidy for fuel	3.6
Subsidy for credit	3.6
Subsidy for capital	5.5
Subsidy for equipment	5.5
Total	163.6

The majority of the satisfied group of fisher folk (mostly from Kedah state) felt so because they are received special loans from the government (Table 4.11) .

Table 4.12: Reasons for inadequate support from the government*

REASONS WHY GOVERNMENT SUPPORT LIMITED	%
Small scale fisher folk are considered inefficient producers	51.9
Fisher folk do not have influence over government decisions	20.4
Limited government budget	3.7
Government favours big scale fishing/aquaculture farms	51.9
Misallocation of budget	5.6
Assume that fisher folk are rich	5.6
Government provide more assistance to the farmers	1.9
Don't know	20.4
Total	161.1

The majority of the unsatisfied group felt that the government considered them as inefficient producers and favoured big scale fishing/aquaculture farms (Table 4.12). It is interesting to note that most of the unhappy fisher folk were in Perak, which is supposedly the largest fishing state in this country. Fifty eight per cent of the Perak fisher folk believed the government was not providing them the necessary support.

* Involves multiple responses

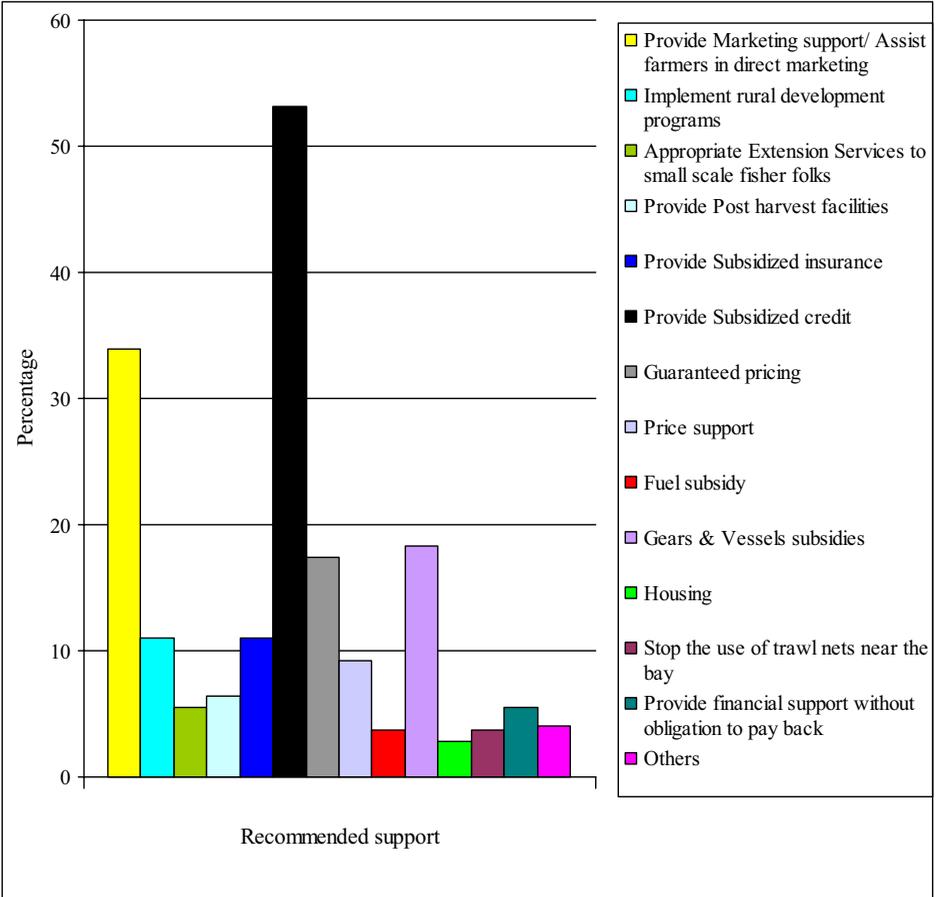


Figure 4.47: Recommended support by small fisher folk

The majority of the fisher folk (53 per cent) indicated that the government should provide subsidised credit (Figure 4.48). They also suggested that government should assist them in marketing their catches. They believed that if these recommendations were implemented, they would be able to sustain themselves in the long run and would not be phased out by the large-scale fishing players, whose practices were not sustainable.

4.2.10 Respondents' awareness on AFTA

Majority of the respondents (71 per cent) were not aware of the ASEAN Free Trade Area (AFTA) agreement. The 29 per cent¹³³ who were aware, received the information from three main sources: newspapers (56 per cent), television (53 per cent) and radio (31 per cent).^{*} However, the majority of them (38 per cent) who heard/read about it had no idea of the benefits AFTA would bring, 34 per cent saw the word in the newspapers, while 16 per cent of them said AFTA was related to free trade/globalisation and it would create more market for them to sell their produce.¹³⁴ However, none of these fisher folk realised the negative effects of AFTA on them.

4.2.11 Gender issues in fisheries

Like their counterparts in other developing countries, women working in the small-scale fisheries sector in Malaysia are usually not recognised as being economically active. Persistent poverty and deteriorating economic conditions have forced many women from rural households to work outside their homes and venture into various economic activities while continuing to perform their traditional household duties. It has been observed that Malaysian women work as long as 15 to 16 hours daily, carrying out household chores such as cooking, washing and cleaning, taking care of the children, working in the fields, either as unpaid family labour or as paid seasonal workers during peak seasons, and engaging in other income-generating or income-substituting activities. Women are no longer confined to their traditional gender roles as wives and mothers but are also wage earners for their families.¹³⁵

Despite these changing roles, women in the rural sector still occupy a lower socio-economic status than their male counterparts. Their freedom and chances of enjoying equal access to employment and educational opportunities are often hampered by religious, social and cultural constraints, besides the numerous household chores and responsibilities by which they are bound. It has been documented that women in rural communities have long been neglected by most development programmes. A few specific attempts have been made by the various government agencies, including the Fisheries Development Authority of Malaysia, to integrate women into rural development plans.¹³⁶

A model for female employment which incorporates elements designed to integrate women into the rural development process was proposed not long ago. The central concern of this model is the creation of non-agricultural employment for rural women. For maximum impact, this model's strategy should incorporate considerations such as locating the project in small towns and villages, creating small scale jobs outside the agricultural sector, labour intensive light industries, women should be drawn from their homes to a central work place, production cooperative should be organised and additional services and incentives should be offered. However, before determining which income generating projects are suitable and feasible, a study should be conducted on the current production activities carried out by women. This is because if the women are already engaged in subsistence activities, then they should be upgraded to income-earning employment. The new income generating project should also consider the dualistic roles

¹³³ Refers to 32 respondents.

^{*} Involves multiple responses

¹³⁴ Refers to 32 respondents.

¹³⁵ J.Yahaya, 2001, op. cit.

¹³⁶ Ibid., p. 100.

played by women. They should not be drawn out from their homes for long periods as they will be unable to perform their normal domestic tasks¹³⁷.

Importantly, income generating programmes for women should not be carried out in isolation. They have to be integrated into other activities of rural development. Success in enhancing women's economic participation in the small-scale fisheries sector depends very much on the political will and commitment of planners and policy makers. Without this will and commitment, the concern to enhance the economic participation of women in fisheries and to integrate them into development will remain a widely discussed issue.

Women's contribution to the fisheries sector is important. If their contribution is not recognised, it could lead to their exclusion as project beneficiaries, as well as deny them access to appropriate technology, extension services, and training, thus depriving them of the chance to achieve their full potential.

4.2.12 Summary of Research Findings

The majority of the fisher folk are in the age group of 31-45 years and most of them possess primary education. The majority of the fisher folk are married and the homes they live in either belong to their husbands or parents. The house structures are permanent in nature, i.e. galvanized roof. Most of the houses are equipped with modern toilet facilities, i.e. flush type toilet. There are about four to seven members in each household and the majority of the fisher folk have between two and five children. The villages surveyed are equipped with water and electricity facilities. The primary roads in the villages are tarred.

The majority of the fisher folk interviewed own outboard powered boats of less than 10 tonnes. On an average, the size of vessel owned by these fisher folk is one tonne. The other fishing equipment acquired by the majority of respondents is drift/gill nets. Most fisher folk's boats are owned by the husbands or others who do not carry out fishing activities. The majority of the fisher folk in Malaysia go out fishing on average between 201 and 300 days and their annual catches are between 1,000 and 2,000 kg.

According to these fisher folk, their current operating expenses have are higher compared to five years ago because of the increase in the prices of fuel, motor oil and nets. The cost of boat maintenance is also high.

The majority of the fisher folk are dependent on the fishing sector to feed and clothe themselves and their families. Although the net income of most fisher folk fall into the bracket of US\$101-US\$150 and US\$151-US\$200, 9.2 per cent of them earn between US\$51 and US\$100, i.e. below the poverty line. Since the earning capacity of a small fisherman is insufficient to sustain himself or his family, he depends on other family members, i.e. wife and older children, to increase the household income. These family members work in factories, perform tailoring activities, and also make and sell delicacies. In spite of the additional income from other household members, 1.8 per cent of the fisher folk's households still fall into the low income bracket.

¹³⁷Dixon, R.B. 1978. Rural Women at Work – Strategies for Development in South Asia. John Hopkins University Press, Baltimore, MD.

Fisher folk are not reaping the fruits of their hard work compared to retailers. Although there has been an increase in seashore prices of the three most caught fishes (Indian Mackerel, Ray and Chinese Silver Pomfret) over the last five years, the rise is not as high as the prices set by the retail traders. High cost of operations coupled with shortage of fishes in the market cause the seashore prices to increase. Fish shortage during festive season also causes fish prices to increase.

The majority of the fisher folks sell their harvest to more than one buyer, i.e. traders, followed by moneylenders and wholesalers. The reasons are they are offered high price for their fishes, they are forced due to existing debts with these buyers, they are paid in cash, and these buyers provide marketing and cleaning services.

Traders and middlemen offer fisher folk loans to buy boat and fishing gears, pay for household expenses and to use as capital for production and for emergency purposes. In return, the fisher folk are required to sell their catches to these traders to subtract their debts. With low incomes coupled with high production and household expenses, fisher folk are always short on money. Thus, they borrow from traders, believing that their financial misery is permanent. The majority of the fisher folk stipulate that they can settle their loans within the agreed period by paying monthly installments. However, many were unable to settle their loans within the loan period because of the irregularities of their catches. The fisher folk tend to borrow more now compared to five years ago.

The majority of the fisher folk believe that their catches are for local consumption. Their major problems are decrease in catches due to dwindling fishery resources, indebtedness and illegal use of trawl nets near the bay area. Besides being indebted, their other common problems are high operation costs and no subsidy for fishing activities.

To overcome the problems, the fisher folk recommended that they be provided domestic subsidies, the government should enforce the regulations strictly to curb illegal fishing activities. The also said conservation and protection of the coastal resources should be emphasized and price should be set for selling fishes.

On government support, the fisher folk are evenly divided in their opinion. The satisfied fisher folk feel that the government has provided them special loans. The other group felt that the government did not provide them the necessary support because it considered them as inefficient producers when compared to big scale fishing/aquaculture farms. The fisher folk said the government should provide subsidised credit, gear and vessel and marketing support. They also want the government to introduce guaranteed prices for their fishes.

The majority of the fisher folk are not aware of AFTA. Those who are aware of AFTA, received the information from television, radio and newspapers. Nevertheless, they have no idea of the implications AFTA would have on them.

4.2.13 Limitations of research

The fisheries research covered fisher folk with boat size of 10 tonnes and below. The sample areas and respondents covered by this research project were limited due to budget and time constraints.

4.2.14 Conclusion and Recommendations

Fish is one of the main resources of the seas and oceans. In many developing countries, including Malaysia, fish is the main source of animal protein. Often it is the only source of animal protein for the poor. The total world harvest comes not only from thousands of large industrial vessels but also smaller fishing craft, a large proportion of which catch fish for direct consumption by local people.

However, the small-scale fisher folk are not benefiting from the current multilateral trading regimes. Those that are benefiting are the export-import institutions dominated by accredited and authorised buyers including middlemen, traders and feed millers. The social, economic and environmental conditions of small-scale fisher folk have been compromised for the benefit of exporters and also deep-sea fishermen. Malaysia is steadily and increasingly becoming dependent on imports of fishery products to meet demand.

Deep-see fishing and over exploitation of fish resources are depleting fish stocks and damaging their habitats. Aquaculture on the other hand focuses on relatively high-value species, resource intensive production technologies and expensive operations which do not directly benefit the poorer fisher folk. The majority of poor fisher folk have very limited access to technologies, land and water resources, and capital. Hence they rarely benefit from improved technologies and increased production.¹³⁸

Small-scale fishermen are often overlooked in fisheries development and management. This is possibly because development of fisheries policy, investment in research and regulatory efforts are focused primarily on commercial fishing activities and on species perceived to be important to men. Small-scale fisher folk are unable to compete with business as they are unable to break out of their structural difficulties and constraints. Hence, there is a great need for appropriate fishery policy, support and improved technologies to target the resource poor fisher folk in order to increase and sustain their production, income and consumption.

Globalisation is supposed to have benefited hundreds of millions of people, but many have been made worse off. Effective food and agricultural policy and institutions are needed to complement and guide globalisation to achieve food security. An effective government is needed to facilitate privatisation and guide the transformation of the fisheries sector in a direction beneficial to the poor.

However, the main challenge in uplifting the economic status of the small-scale fisher folk lies in their mind sets and attitudes. They should no longer be complacent but willing to learn and change their ways to attain economic success.

¹³⁸ World Fish Centre (2002). Strategies and Options for Increasing and Sustaining Fisheries and Aquaculture Production to Benefit Poor Households in Asia: Sustaining Fisheries and Aquaculture Production to Benefit Poor Households in Asia.
<http://www.worldfishcenter.org/demandsupply/background.htm>

FAO statistics showed that 95 per cent of all fishers are in the developing countries, mostly small-scale fish folk. It was estimated that they produce about 30 million metric tonnes (MT) of fish per year, mostly for direct human consumption.¹³⁹ In recent years, their precarious economic positions have worsened as a result of new threats. Today there is a real danger. Unless strong policies and measures are undertaken to counter the new and old threats, small-scale fisher folk will be left out of the mainstream of economic and social development, and become the poorest of the poor in this country. The new threats to small-scale fisher folk are due in large part to the adoption of the export-led growth policy by governments in the region which increased foreign and local capitalist investments in the 1970s, 1980s¹⁴⁰ and 1990s.

Policymakers should acknowledge and include small-scale fisher folk in their policies by granting them rights as resource users. Most of them depend on the trade as their main means of livelihood. Although there is no “one-size fits all” management approach suitable to all nations and fish stocks, strategies such as improving licensing and monitoring regimes, developing refined fishing gears, establishing marine protected areas that act as refuges for recovery of fish stocks, managing river basins as integrated units with water allocation to sustain river flows and the natural ecosystem functions and processes could clearly contribute to sustainable fishing practices.

Development in coastal areas should be carried out with care and proper planning without harming the fishery resources of this country, i.e. mangroves swamps and forests. Although mangroves have been proven to act as natural buffers between the sea and coast and as a breakwater to check coastal erosion by waves, faulty economic policies have hastened their disappearance. Neo-liberal economic policies have pushed economic growth at the expense of human life.

With the Fisheries Act 1985, Malaysia has a comprehensive legislation for protecting its fisheries resources from destructive fishing. Unfortunately, the difficulties in enforcement still exist because of the shortage of skilled personnel, logistic and financial resources. The data on the detection of fishing offences may not represent the actual level of destructive fishing activities. This was because most of the reports on the fishing offences were only made during joint-operations by various maritime agencies. This indicates that the effectiveness of the centralised fisheries management was highly dependent on the costly administrative and enforcement measures. As an alternative to overcome this problem, the government should encourage local participation in fisheries management on the basis of successful experiences in countries like Japan, Thailand, the Philippines and Indonesia.¹⁴¹ Local participation in fisheries management has many merits since it may minimise the administrative and enforcement costs, maximise the use of traditional knowledge and improve compliance. Also known as co-management, it has a dynamic relationship between the government and the community in sharing authority in fisheries management.¹⁴² Co-management encourages involvement of six groups of stakeholders,

¹³⁹ Anonymous. Global Fisheries Crisis for All, <http://www.bername.com/bernama/v3/news.php?id=95892> (accessed on Sept 30, 2004).

¹⁴⁰ Lim Teck Ghee, op. cit.

¹⁴¹ Zahaitun Mahani Zakariah, Destructive Fishing In Malaysia: The Need for Local Participation in Fisheries Management, Maritime Institute of Malaysia.

<http://www.mfrdm.org.my/publications/Draft%20NPOA%20Shark%20Final%20February%20202205.pdf>

¹⁴² Pomeroy, R. (1993). A research framework for coastal fisheries institutions. *Naga ICLARM Quarterly* 16(1): 14-16

i.e. the government, media, non-governmental organisations, local community, private sector and academia.¹⁴³

The empowerment of fisher folk in managing the fishery resources will make them feel committed and this will promote compliance. This participatory approach that has been carried out around the world has shown that when fisher folk were left to their own devices, they can regulate access and enforce rules for ensuring sustainable fisheries through community institutions.¹⁴⁴

It is inevitable that bad feelings between trawler fishermen and traditional small-scale and inshore fishing communities could grow and take a violent turn. Hence, strong and timely government intervention in regulating relationships between inshore small-scale fisher folk and trawler fishermen is required. Although the Fisheries Act 1985 was brought upon to act on this issue, this problem has not been resolved.

Specifically, Malaysia should take the following steps to protect its fisheries sector generally and the traditional fisher folk specifically from any adverse effects of full implementation of AFTA:

- Establish a relief fund to assist in decreasing the amount of losses suffered by small-scale fisher folk due to natural disasters;
- Identify habitats for reproduction and nursery ground and these need to be protected from destruction and fishing activities;
- Improve and develop framework for establishing and coordinating effective consultation involving stakeholders in research, management and educational initiatives within and between states in the fisheries sector;
- Strengthen education and public awareness among fisher folk and people on importance of conservation of fisheries resources;
- Implement effective conservation and management strategies on fisheries resources;
- Promote sustainable management of fisheries and coastal resources *via* the development of institutional arrangements that address the underlying problems besetting the country's fisheries and coastal resources;
- Develop rational distribution of authority for monitoring planned management and integrated action for the benefit of the resources and those who depend on them;
- Fisheries training courses and skills development should not only focus on men fisher folk but also women fisher folk;
- Extensive and efficient programmes on educating the fisher folk about fisheries management needs should be intensified;
- Regulate conversion of mangroves for aquaculture and infrastructure purposes;
- Enhance enforcement and education;
- Collect data on fisheries resource productivity, demographics and availability;

¹⁴³ Ayut Nissapa, Awae Masae, Somsak Boromthanasat and Vichot Jungrungrat. (2001). Institutional and Policy Perspectives in the Management of Fisheries and Coastal Resources in Thailand, pp. 170-171. In Magnus Torell and Albert M Salamanca (eds.), op. cit.

¹⁴⁴ Zahaitun Mahani Zakariah, op. cit.

- The Fisheries Act 1985 should be amended to include the following:
 - Restrict the catch volumes of fisher folk by setting total allowable catches and establishing technical measures to minimise the occurrence of discards;
 - Promote more selective fisheries by establishing technical measures related to mesh sizes, selectivity devices, closed areas and seasons, minimum fish landing sizes and limits of by catch;
 - Reduce fishing capacity to a level compatible with fishery resources;
- An effective and efficient marketing system needs to be developed hand in hand with the development of fisheries production in order to ensure that fresh produce are moved from producers to consumers at the lowest possible cost consistent with the provision of services that the producers and consumers demand;
- To avoid risk caused by fish price fluctuation, it is necessary to set up large storage and processing facilities;
- Remove subsidies which are clearly shown to contribute to unsustainable fisheries practices, especially those encouraging expansion of fishing capacity for fully exploited resources (i.e. trawlers and big businesses).

General Conclusion

This research has not been able to conclusively show the effects and impacts of AFTA on the rice and fisheries sectors. Since AFTA has yet to be implemented for the rice sector, the findings reported were actually based on economic and industry changes from WTO issues that had taken place in the rice sector over the years and not from AFTA.

Chapter 5

Conclusion

In spite of its declining significance, the agriculture sector continues to play an important role in the economy and development of Malaysia. As the country industrialised, the structural changes in the economy have brought new issues and challenges to the rice production sector, namely acute labour shortage, limited availability of farming land, lack of capital, low income generation, middlemen domination of the market, increased cost of production, transnational corporations' control of farm inputs, i.e. chemicals and fertilisers, limited support from the government, low influence of small producers over decision making, displacement of women farmers and intense competition in the global market arising from trade liberalisation.

Globalisation was supposed to have benefited hundreds of millions of people, but many are worse off. Effective food and agricultural policies and institutions are needed to complement and guide globalisation to achieve food security. An effective government is needed to facilitate privatisation and guide the transformation of the agricultural sector in a direction beneficial to the poor.

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