

CHAPTER 4

ANALYSIS & FINDINGS: PERCEPTION REVIEW, SURVEY RESULTS AND ANALYSIS

4.1 Introduction

This chapter focuses on perceptions related to the oil palm industry and their influence on sustainability, and also examines current and previous articles that may have impacted perceptions towards the oil palm crop. In the course of this study, surveys were conducted among the industry stakeholders to obtain their perceptions about sustainability, their level of awareness about sustainable development and their observations about the concept.

The oil palm growers have been highlighting the fact that the oil palm crop is the world's most productive oil crop, with an average yield of 4 tonnes of oil per hectare. It produces ten times more oil than soybean and eight times more than sunflower. Consequently, they assert, it uses the least amount of land among all the oil crops to produce the same tonnage of oil. On the other hand, the anti-palm oil campaigns that have been broadcast through the media and international publications claim that the palm oil industry is damaging the environment, causing deforestation, destroying biodiversity and contributing to global warming.

4.2 Previous Work that Discusses Perceptions about the Palm Oil Industry

A series of articles that discuss perceptions towards the industry was compiled in this study. They encompass varying opinions about the sustainability of palm oil and health-

related issues. A selection of the articles is discussed below, to show the spectrum of perceptions and views that the palm oil industry garners.

Roslan, et. al (2011) studied the Malaysian oil palm biomass industry and the supply of oil palm biomass for secondary industries, and examined the perceptions of palm oil millers through a survey. Of the 379 palm oil mills in Malaysia that responded to the survey, about 30% were involved in utilising biomass (either POME or EFB) by turning this biomass into EFB fibre, bio-fertiliser or biogas. The study showed that there is a need for the authorities to introduce a policy on biomass and for an economic evaluation of the biomass projects of the millers to be undertaken.

In work done by Adebowale in 2009, it was found that the critical drivers that helped make Malaysia the world's leading exporter of palm oil and related products are policy instruments and institutions that were created to support the industry. These measures have been strong and consistent, augmented by network connections and coordination among economic agents directly related to the operations of palm oil firms (Adebowale 2009) .

MPOC in their publication, "A Fair Trade Approach for Promoting Food Security and Ensuring Supply Sustainability in Oils & Fats Trade" commented on the need for fair trade practices and regulations to be applied to the oils and fats trade. If unfair practices and regulations are used, such as measures to limit deforestation as a means to curb the growth of the oil palm industry, this can lead to lower food production and consequently drive up food prices and thus threaten food security (Basiron, 2011).

McNamara claims in his paper entitled "Palm Oil and Health: A Case of Manipulated Perception and Misuse of Science" that successful national campaigns were undertaken to force food manufacturers to remove tropical oils, including palm oil, from their

products and to replace them with hydrogenated vegetable oils, resulting in increased intakes of trans-fatty acids. Later, however, these oils became the target of the same advocacy groups over the health concerns associated with trans-fatty acids, and currently, palm oil is being touted as a suitable replacement for hydrogenated vegetable oil (McNamara, 2013).

Loders Crocklaan North America, the manufacturing arm of IOI plantations, undertook a survey of consumers' attitudes towards trans-fat consumption in 2004. Among the findings were: A majority of consumers prefer products with 'no trans-fat' or 'no hydrogenated oils'. About half of consumers will accept a large increase in saturated fat in order to eliminate trans-fat. Palm oil is an acceptable ingredient in order to eliminate the consumption of trans-fat. Without 'education' about its health impacts, partially hydrogenated vegetable oil is acceptable in order to eliminate consumption of trans-fat. Ingredients with unfamiliar names (e.g. 'inter-esterified') are less desirable as solutions for trans-fat (IOI Group, 2004).

A survey on consumer perceptions of Ecuadorian palm oil (Aguiar, et. al, 2012) found that consumers in the United Kingdom have a negative perception towards palm oil's qualities. The survey results would help palm oil producers to adopt more consumer-sensitive marketing strategies that emphasise the sustainability of that sector. It could be concluded that unsustainable methods of palm oil production contribute to a negative reaction from the majority of respondents. The respondents' perception towards palm oil products is directly affected by their level of awareness and concern for environmental values.

“Will forests remain intact in the face of oil palm expansion? Simulating change in Malinau, Indonesia.” This is the question asked by Sandker, et. al. (2007) in his article.

The article explores the impact of the potential conversion of 500,000 ha of forest to oil palm, measured in terms of the effects on forest cover, immigration, and the local economy in Malinau. If a company were to clear the forest for timber without planting oil palm (as commonly happens), poverty levels are likely to rise rather than decline over the long term. If large-scale oil palm plantations were to be established, they could yield significant benefits to local government entities. However, such development would induce massive employment-driven migration, with wide-ranging consequences for the current inhabitants of the region. It is possible to assess the cost-benefit outcomes of such economic activities by visualising and quantifying these trade-offs between conservation and development.

From these articles alone, it can be seen that the conclusion and perception derived from each paper is very much geared towards the direction that the author wishes to take, and the view that is aimed to be propagated. Even though all the above studies are from legitimate scientific journals of good reputation, the diversity of viewpoints taken shows that perceptions can be shaped according to the inclination of the writers.

4.3 Excerpts from Media, with Varying Perceptions about the Palm Oil Industry

Perceptions towards the palm oil industry from various non-scientific sources such as newspapers and websites are considered here. A few excerpts have been compiled to indicate the range of views that exist and the spectrum of sources for such information.

1. The Jakarta Post published an article on 14 Oct 2010 on the issues of perception and reality about the palm oil industry.

The misconceptions listed include:

Misconception 1: The expansion of oil palm cultivation is the cause of deforestation

Misconception 2: The palm oil industry is the biggest contributor of greenhouse gas emissions (GHG)

Misconception 3: The palm oil industry eliminates biodiversity

Misconception 4: The palm oil industry is not sustainable

The Jakarta Post takes the stand that the palm oil industry remains a target of campaigns launched by international NGOs, as well as European and American countries. Anti-palm oil campaigns have been carried out systematically and consistently through the media and international publications.

2. Mongabay.com published an article on 23 March 2009 entitled: “Is oil palm the next emerging threat to the Amazon?”

The writer takes the view that the oil palm is the fastest growing agricultural crop in the tropics and has occupied a large extent of land in Asia. Now, the Amazon Basin appears poised to experience the rapid expansion of oil palm agriculture, which would be the next biggest threat to the Amazon forest.

3. The Star Online published an article on 17 November, 2012 entitled, “MPOC: Counter negative perception of palm oil”

The article reports that the French senate had rejected a budget proposal by a member of parliament that aimed to increase the tax on palm oil that was to be used in France. The paper sees this as an opportunity for France to work with Malaysia in countering negative perceptions of the commodity. MPOC chief executive Tan Sri Yusof Basiron claims in the publication that the proposal was not based on science, describing it as an “unjustified attack against hundreds of thousands of small farmers across Malaysia.

Malaysia is pleased to see the French senate reject the PLFSS budget that contained the inflammatory and baseless tax on palm oil,” he said.

4. The Express Tribune published on 14 October, 2010 an article entitled, “Palming Death off on Us”.

The article claimed that palm oil has been banned by European countries as it is hazardous to human health, yet 70 per cent of Pakistanis use this product in their homes at least three times a day. Palm Oil or Banaspati ghee processed from palm oil is harmful as it blocks arteries, leads to excessive weight gain and high levels of cholesterol. It also claims that palm oil is linked to cancer-causing agents.

5. Bloomberg published on 6 November, 2012 an article entitled, “Palm Oil Inventories in Malaysia Jumped to Record: Survey”

The writer believed that the palm oil stockpiles in Malaysia had climbed 8.9% in October to a record as production exceeded exports, and the oversupply situation had driven prices 20% lower compared to the end of August 2012. Some of the measures to boost exports and consumption are likely to curb the increase in stockpiles, said an investment analyst, citing the Malaysian government’s announcement last month to cut the tax on crude exports and abolish a duty-free shipment quota from Jan. 1, 2013.

6. The Earthwatch website published on 10 December, 2012 an article entitled, “Earthwatch scientist to advise on sustainable palm oil production”.

Dr Glen Reynolds, lead scientist on the Earthwatch project “Climate and landscape change in Borneo’s rainforest”, has been appointed by the Roundtable for Sustainable Palm Oil (RSPO) to plug the knowledge gap concerning the issue as questions remain as to the scientific basis of some RSPO criteria, and many oil palm growers have

difficulty both in understanding their interpretation and in their implementation. For example, assessments to identify areas of High Conservation Value (HCV) forest are complex, requiring skill-sets that are seldom present among plantation staff, and once HCV forests are identified, guidance is often lacking as to how to maintain the conservation values which they support.

4.4 Current Perceptions or Mental Paradigms about the Oil Palm Industry

There are many players or “actors” in the oil palm sector that impact the industry. For Malaysia they would include:

- I. Federal Government Agencies: Ministry of Plantation Industries and Commodities, Malaysian Palm Oil Council, and Malaysian Palm Oil Board
- II. Growers Groups: Planation Companies, Small Holder Groups, Malaysian Palm Oil Association and Small Holders Association
- III. Plantation Work Force Groups: Palm Oil Workers Union, Palm oil field executive staff, palm oil field non-executive staff, and foreign labour in palm oil industry
- IV. Other players indirectly related to the palm oil sector: Local NGOs, foreign NGOs, media groups, traders associations, scientists (from MPOB and oil palm industry), buying and selling countries. However, these groups of people only have secondary impact on the management of the oil palm plantations, thus were not considered main players for this perception survey.

An analysis of the perceptions that are gathered from the survey of websites, literature review and personal communications with the above players produced several salient observations: (The websites cited in November 2012 include: MPOC, WWF, RSPO, Greenpeace, Mongabay, The Tribune, The Star and Rainforest Alliance.)

1. Foreign NGOs (especially the European organisations) believe that the industry is unsustainable and there is a need further regulation;
2. Local NGOs (including the branches of the foreign groups) are supportive of the palm oil industry and are working with its players to ensure sustainable practices are adopted by the industry;
3. In Malaysia, industry players in Peninsular Malaysia and Sabah have a better record of sustainable agriculture practices, while those in Sarawak need to be more transparent about their activities and what measures are required next;
4. Plantation management practices in Malaysia can be improved to increase the yield of the crop, without necessarily increasing the acreage for the crop;
5. The balance between good agricultural practices and fauna/flora management for optimal outcomes for biodiversity has to be better regulated;
6. To ensure that the production of sustainable CPO is successful, both producing and importing nations need to work together to address the whole life-cycle of palm oil, and
7. Social issues such as land rights and the handling of foreign labour, need better management by the industry.

4.5 Survey Set-up and Justification

The survey covered the oil palm industry in Malaysia and its main stakeholders in the country, and was administered through focus group meetings since March 2011. The survey respondents were made of stakeholder groups of traders/manufacturers, growers, non-government organizations (NGOs) and the media. There were 742 questionnaires answered by top and middle management respondents from among the stakeholders.

The respondents were from mainly the following institutions and companies: Malaysian Palm Oil Council, Sime Darby Berhad, United Plantations Berhad, Hap Seng Consolidated Berhad, Kulim Malaysia Berhad, IOI Group Malaysia and Bursa Kuala Lumpur. The survey results were coded and the SPSS package was used to find correlations among the responses.

4.6 Frequently Used Terms and Their Definitions

There are many terms used in this chapter that may give rise to varied interpretations. In the interest of standardising what they stand for, the following list of definitions has been compiled for the oil palm industry in particular:

Stakeholder: A person or group of persons with an interest in or concern for the oil palm industry. The term includes individuals who make up the industry and companies related to the palm oil industry as board members, executives, managers, employees and trade unions.

Variable: An element, feature, or factor that is liable to vary or change or affect the oil palm industry's development, growth and establishment.

Issue: An important topic or problem for debate or discussion in the oil palm industry

Sector: An area or portion that is distinct from others. For this study, the divisions among the issues are environmental, economic, social and governance.

Environmental Issues: Negative aspects of human activity on the biophysical environment. For the palm oil industry, they would include deforestation, water and air pollution and greenhouse gas emissions.

Social Issues: Matters which directly or indirectly affect a person or many members of a society and are considered to be problems. For the palm oil industry, they would include transgression of traditional land rights, low and inconsistent wages and the disregarding of cultural rights.

Economic Issues: Problems faced by society and business operators on how to allocate scarce resources for the provision of goods and services. For the oil palm industry, this would include the price of land, the cost of planting, workers' wages and the price of CPO.

Governance Issues: Problems related to governing or managing the industry. Good governance relates to consistent management, cohesive policies, guidance, processes and decisions for the sustainability of the oil palm plantations.

Grower: A person or group of individuals including corporations involved in the growing of oil palm.

Local Community: A group of interacting people sharing or affected by the environment of oil palm plantations.

Non-governmental Organisations (NGOs): Legally constituted organisations created to operate independently from any form of government, sometimes considered as watch-dogs. NGOs, depending upon their constitution, may or may not be charitable and propagate issues related to environmental, social and economic matters. Examples of NGOs dealing with the industry are the ISO, Transparency International and World Wildlife Fund (WWF).

Trader: A person or groups of individuals, including corporations, involved in buying and selling of palm oil crop and products.

Manufacturer: A person or groups of individuals, including corporations, involved in organised actions for making goods and providing services for the palm oil industry.

Media: Those involved in communication channels via broadcasting and narrowcasting medium such as newspapers, magazines, TV, radio, billboards, telephone, internet, etc.

4.7 Identification of Stakeholder Groups and Their Priority with Regards to Sectorial Variables

The stakeholders were given a list of variables to prioritise, as listed in *Table 4.1*. The stakeholders interviewed were asked to rank the variables according to their priorities in

their sector. These variables were chosen based on the literature review and secondary data collected.

Table 4.1: List of Variables Presented for Ranking

Environment	Variables	Description of Variables with Regards to Oil Palm Plantation
	GHG emission	Gas emitted by the industry from the atmospheric thermal infrared range. The primary greenhouse gases from the industry are water vapour, carbon dioxide, methane and nitrous oxide.
	Deforestation	Clearing of forest for the growing of oil palm crop.
	Biodiversity maintenance	Keeping the variety of life in a particular habitat or ecosystem in good state.
	Maintaining water balance	Hydrological situation where flow of water in and out of an ecosystem is balanced.
	Pollution	The presence or introduction into the environment of a substance that is harmful or poisonous.
	Overuse of chemicals	Too frequent or extensive use of compounds or substances that have been purified or prepared artificially

Source: Author, 2013

.....Continue

Table 4.1: List of Variables Presented for Ranking

Economic	Variables	
	Agricultural land	Land suitable for agricultural production, both crops and livestock
	Land price	The amount to be paid for purchase or leasehold of a piece of land.
	Cost of managing the plantation	The finances required for development, care and servicing of various elements for the plantation.
	Labour cost	Wage or finances received by workers in exchange for their labour.
	Palm oil price	The amount of money expected, required, or given in payment for palm oil.
	Commodity market	Markets where raw or primary products are exchanged. These raw commodities are traded as regulated commodities.
	Government incentives	Measures taken by a government to attract investments for the development of the oil palm industry
Social	Variables	
	Land claims	Assertion of land rights, typically without providing evidence or proof of ownership.
	Boundary issues	Questions over a line that marks the limits of an area or a dividing line.
	Indigenous rights	Those rights that exist in recognition of the specific condition of the indigenous peoples. These include not only the most basic human rights of physical survival and integrity, but also the preservation of their land, language, religion, and other elements of cultural heritage that are a part of their existence as a people.
	Cultural matters	Relating to the ideas, customs, and social behaviour of a society.
	Heritage site maintenance	That is or may be inherited; an inheritance. Valued objects and qualities such as cultural traditions, unspoiled countryside, and historic buildings that have been passed down from previous generations.
	Labour matters	The people, class, or workers involved in labour, especially in contrast to management, capital, etc. physical toil

Sourec: Author, 2013

4.8 Survey Limitations and Operational Details

As there have not been many perception surveys conducted previously on oil palm sustainability, and almost none on the oil palm land matters, this survey was designed to obtain structured input from the stakeholders identified. The survey was designed with close-ended questions, so that the results would be easier to tabulate. (The detailed questionnaire is attached in **Appendix 1**.)

The surveys were also focused on Malaysia and Malaysian issues with regards to oil palm plantations, with the four main stakeholder groups as respondents, namely traders/manufacturers, growers, NGOs and the media. The respondents included members from the largest players in the industry: United Plantations Berhad, Hap Seng Consolidated Berhad, Kulim Malaysia Berhad and IOI Group Malaysia. The survey was designed to find out whether the industry knew about sustainability issues, whether they were keen to participate in advancing sustainable development and how they related to land matters that affect the industry.

4.9 Questionnaire Administered for Assessing Stakeholder Perceptions

The questions were administered in 4 parts to find out the stakeholders' exposure to the issue of sustainability and their mental paradigm in this regard.

Part A: Information was sought about the nationality of the stakeholders and their profession; the stakeholders' roles in the industry and how they ranked the

environmental, economic and social sectors according to their perceived importance, and; what priority they gave to the variables in these sectors.

Part B: This part was aimed at establishing the stakeholders' awareness of the issues relating to the oil palm industry's sustainability.

Part C: This part sought to identify the issues concerning land matters in the oil palm industry.

4.10 Suitability of the Analysis to Meet the Objectives of the Study

The second objective of this study is to review the trends in perceptions towards oil palm plantation development and analyse their implications for Malaysia. The best mode to undertake this research is to collect primary data through a surveyor administered questionnaire. This was developed based on examples of survey work carried out by RSPO, WWF and MPOC. The questionnaire was made up of close ended questions, so, respondents' answers are limited to a fixed set of responses. Most scales are close ended. Other types of close ended questions include:

- Yes/no questions - The respondent answers with a "yes" or a "no".
- Multiple choices - The respondent has several options from which to choose.
- Scaled questions - Responses are graded on a continuum (example: rate the appearance of the product on a scale from 1 to 10, with 10 being the most preferred appearance).

4. 11 Survey Results and the Categories of Respondents

There were 742 respondents interviewed during the survey period, from the focus group gatherings carried out at conferences organised by the industry. The breakdown of the stakeholders interviewed is as follows:

- 312 Traders or Manufacturers;
- 323 Growers;
- 55 Non-governmental organizations (NGOs); and
- 48 Media personnel (reporters/TV journalists/other press personnel).

Although, at first glance, the stakeholder spread looks imbalanced, the make-up of the sample reflects the reality of the palm oil sector. The community naturally has more growers and traders/manufacturers compared to NGO members or the press. Malaysia has only about 5-8 active environmental NGOs are operating within the country and a further 15-20 NGOs dealing with various human development issues. As for the newspapers, magazines and other publications, the workforce is also limited, and those dealing with environmental and palm oil issues are small in number. The number of growers in Malaysia is large, as palm oil is the number one agricultural crop for Malaysia, while the traders/manufacturers that deal with palm oil also work on other commodities. As a result, these groups made up the largest number of participants in the survey.

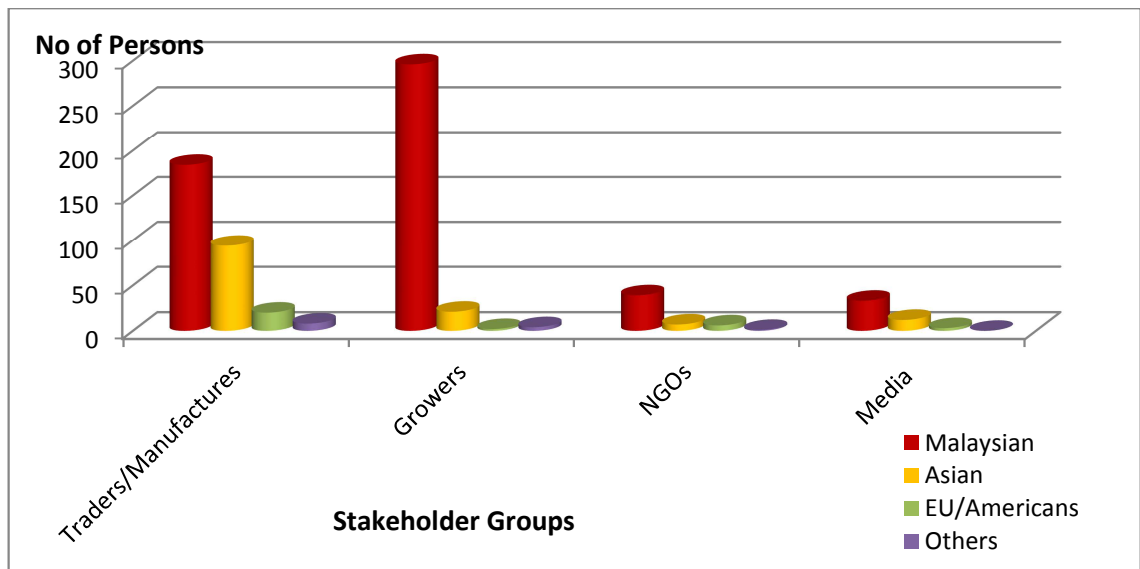


Figure 4.1: Stakeholder Groups by Nationality Interviewed at Conferences

The survey make-up is depicted in the *Figure 4.1*. The breakdown by nationality is: Malaysian: 552 persons, other Asian: 134 persons, European and American: 31 persons and other nationalities: 13. As the number of European and American respondents is only 31 persons, the implications of their views are limited in this study, while the group of other Asians comprises mostly of Indonesian, Indian and Chinese nationals.

All the surveys were carried out in Malaysia, and so the observations made and results obtained are for Malaysia, and largely with a Malaysian perspective. To enlarge this work, surveys can be carried in importing nations and non-producing countries to observe any differences in the perspectives of stakeholders in these countries.

4.12 Ranking of Sectors by Stakeholders according to Perspectives Held

The stakeholders were asked to rank their perceptions of the oil palm industry in the environmental, social, economic and governance sectors. (The issues relating to each of

these sectors have been described in Section 4.7). The overall results of the stakeholders' rankings are depicted in *Figure 4.2*.

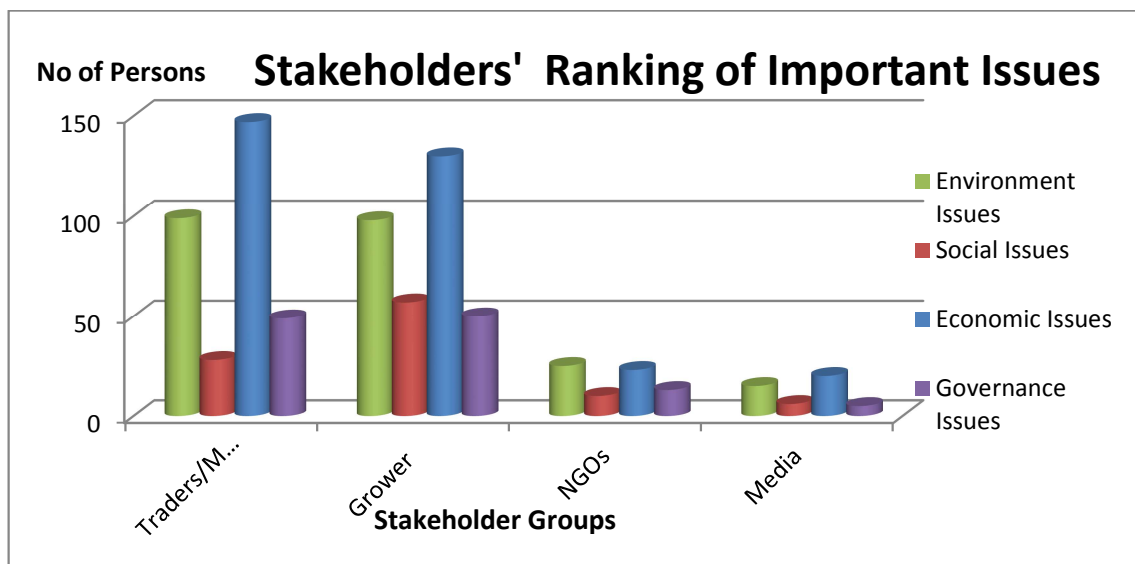


Figure 4.2: Stakeholder Ranking of Sectors (Environment, Social, Economic and Governance)

From **Figure 4.2**, it can be derived that the traders and manufacturers felt that the economic sector was most important for them. The NGOs felt that environmental issues are most important for them, while the growers' and the local media's attention was on the economic sector as well.

Oil palm being an agricultural crop is planted for profits, so it is legitimate for those involved to give priority to the economics of this industry rather than the other sectors. As for the NGOs involved, they are naturally concerned with issues that are created by the existence of the oil palm plantations or remain unresolved. In this case, the issues are mainly related to the environment or sustainability.

The stakeholders from the media who were interviewed were mainly Malaysians who are business reporters. Therefore, they give both economic and environmental issues almost equal attention because these are the issues that draw the attention of the readers and consumers.

The next aspect of the analysis is depicted in Figure 3, where the nationalities of the respondents were considered in relation to the ranking they gave to the sectors. However, for more conclusive results, a survey that includes more nationalities is needed.

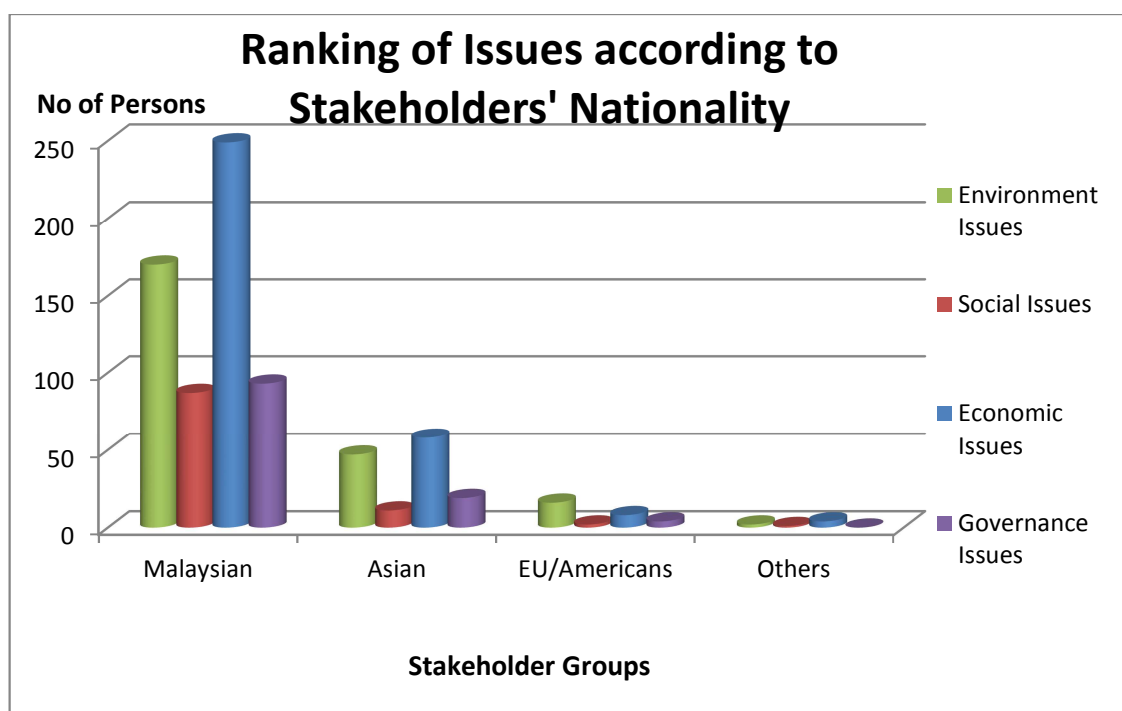


Figure 4.3: Ranking of Sectors according to the Stakeholders' Nationality

The evaluation of the survey results by the nationality of the respondents shows in **Figure 4.3** that, the stakeholders of Malaysian, Asian and other nationalities place the

economic sector in the first rank, followed by the environmental sector in second place. Only the Europeans and American stakeholders give first priority to the environment, followed by the economic sector.

It can be said that this spread in the results exists because the Europeans and Americans, being non-growers, mostly want all the environmental issues taken care of, so that the industry is not hampered by sustainability concerns. Alternatively, they may not know what is happening at the ground level, and so they rely on the secondary views reported in the media in Europe or America.

It is seen that the Asian and other nationalities have a similar pattern of priorities as the Malaysian stakeholders. Most of them being growers or traders/manufacturers are keen to have the economic benefits of the industry, and at the same time manage the environment after the development of the crop. Significantly, those who do not have direct links to the ecosystem want it to be kept as natural as possible, without considering the industry's need for agricultural land.

4.13 The Traders and Manufacturers' Views about the Selected Sectors

The next step in the analysis of the survey results was to focus on each stakeholder group, to see which issues or variables they prioritise, as cited in section 4.7 above. Three sectors, namely the environmental, economic and social sectors, were chosen to examine how variables of importance affected the stakeholders' perceptions.

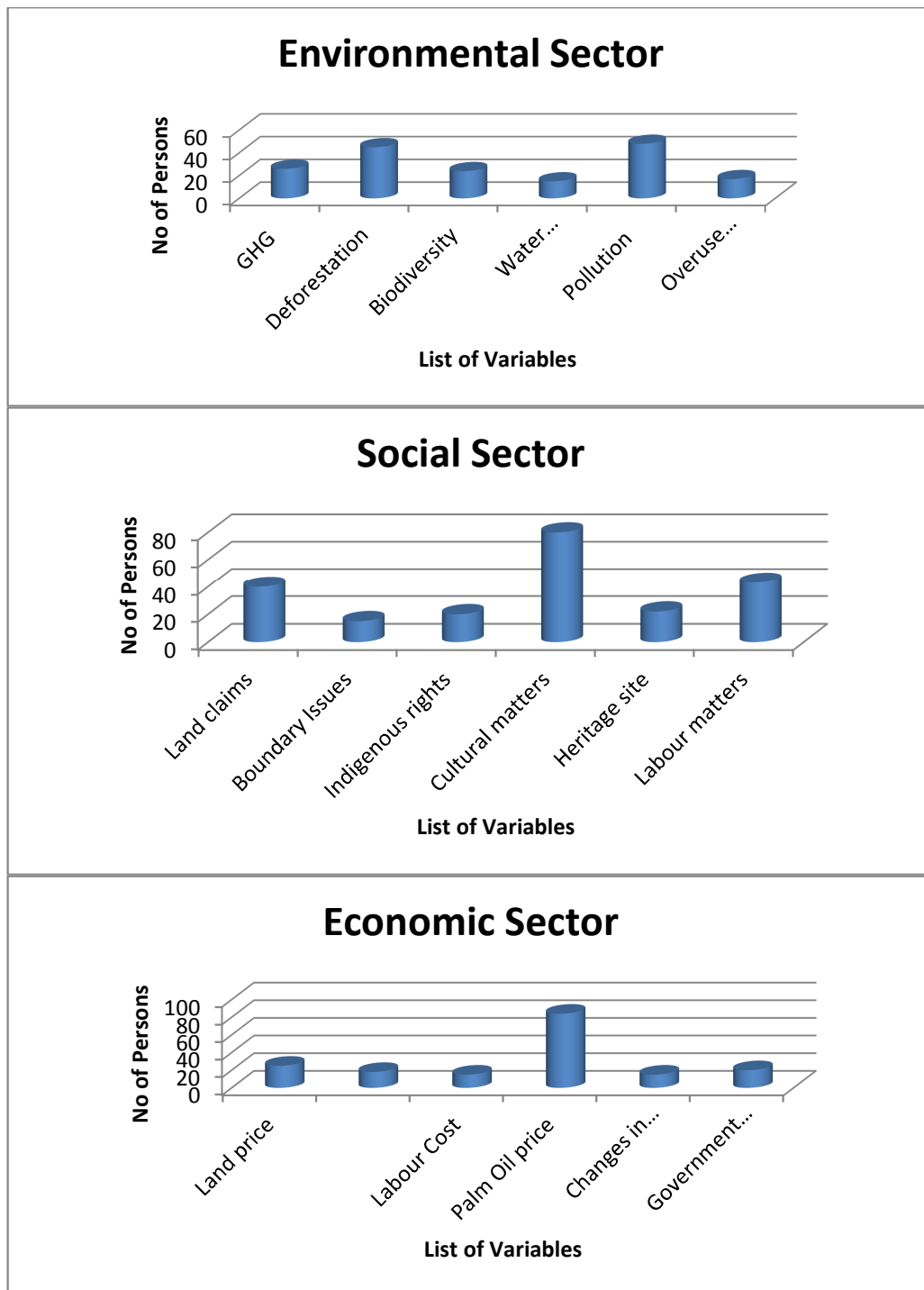


Figure 4.4: The Traders and Manufacturers’ Priority Variables for the Selected Sectors

The analysis for the traders/manufacturers in the oil palm industry, represented in **Figure 4.4**, shows that these stakeholders felt that in the environmental sector, the most

important variable was deforestation issues, followed by pollution-related matters. In the economic sector, it was clearly the palm oil price that was the most important variable, followed by land price. For the social sector issues or variables, cultural matters came out first followed issues related to land claims.

It can be said that the traders place most importance on what affects their business most, and based their perceptions on the knowledge they derived from working on the ground or from reports or the media. It is legitimate for the traders and manufacturers that the price of palm oil carries the highest importance as a variable.

4.14 The NGOs' (Non-government Organisations) Views about the Selected Sectors

The next area of focus in the survey results was the NGOs group, to determine their priority issues or variables as cited in section 4.7 above. The overall results are presented in **Figure 4.5**, covering the selected sectors, namely the environmental, economic and social sectors. The results show that NGOs' views about the environment sector were that the most important variable was water balance issues, followed by deforestation-related matters. In the economic sector, it was clearly the palm oil price that was seen as the most important variable, with equal weight given to labour cost. For the social sector issues or variables, cultural matters came out first, followed issues related to land claims.

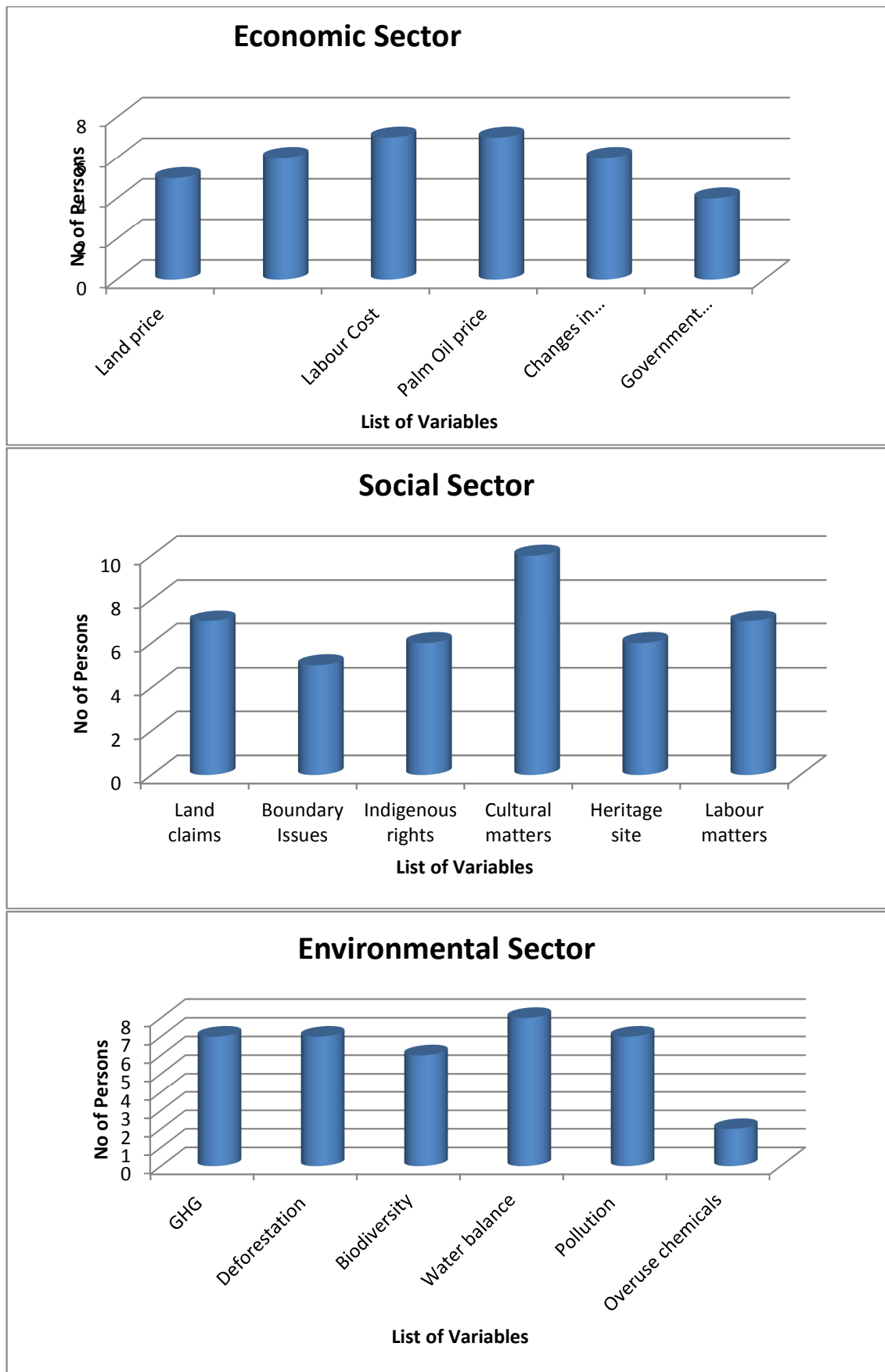


Figure 4.5: The NGOs' Priority Variables for the Selected Sectors

The stakeholders' choice of variables can be explained by the fact that for the NGOs, the price of palm oil was still the main variable, as without a good price for the commodity, the oil palm plantations would not be a viable business. Labour cost also got equal weight, as wage-related issues are the most vocally debated and dominant matter for many of these groups, which argue that palm oil, is a profitable business and all involved should be fairly paid. Deforestation and water balance are important environmental variables for the NGOs, as these two determinants can be easily be observed and monitored. Furthermore, when the water balance of a particular ecosystem or habitat is impacted, all the neighbouring activities are also affected.

NGOs are normally the only stakeholders that do not derive any income from the palm oil sector and give unbiased opinions for the sustainable progress of the industry. However, this not completely true of the NGOs working in the palm oil sector, as most of them are paid by the industry players or associations related to the industry.

4.15 The Growers and Local Communities' Views for the Selected Sectors

The next group of survey responses that was analysed was that of the growers, and their perception of priority issues or variables, as cited in section 4.7, were charted. The overall results of the analysis are presented in **Figure 4.6**, covering the selected sectors, namely the environmental, economic and social sectors. In the environmental sector, growers and local community representatives viewed pollution issues as the most important variable, followed by deforestation-related matters. In the economic sector, it was clearly the palm oil price that was the most important variable, followed by land price. As for the social sector issues or variables, labour matters came out first, followed by issues related to land claims.

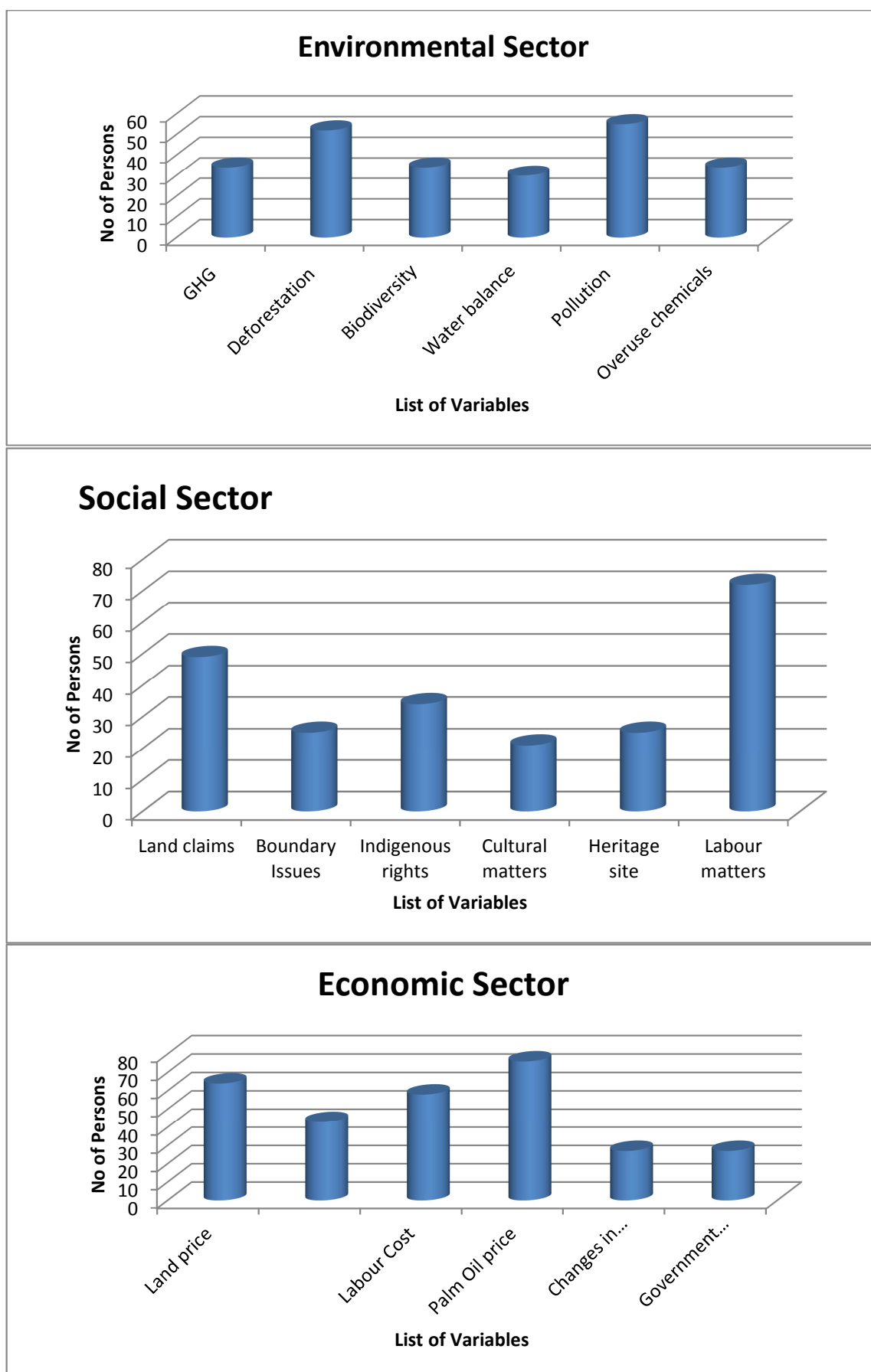


Figure 4.6: The Growers' Priority Variables for the Selected Sectors

Growers are the main group directly involved in the production of palm oil, and have both ground level and top management experience. The growers choose the price of palm oil as the most important variable, as without the profits from this commodity, they would not be involved in the business. As the biggest problems the Malaysian growers face have been managing labour and the cost of labour, therefore it is not surprising that this variable takes first place in terms of importance. With regards to the environment, pollution-related matters lead, as chemical use, particularly the application of pesticides, herbicides and fertilisers are a cause of concern. Forest-related issues are not so pertinent, as most of our plantations are in the 2nd and 3rd planting cycles. Furthermore, the new plantings mostly involve conversion from other agriculture uses.

4.16 The Media's Views about the Selected Sectors

The next area of the survey results that was analysed was the media group, which indicated their perceptions of the priority issues or variables as cited in section 4.7. The overall results of the analysis are presented in *Figure 4.7*, covering three sectors, namely the environmental, economic and social sectors.

As *Figures 4.7* shows, the media's views concerning the environmental sector were that deforestation issues were the most important variable, followed by pollution-related matters. In the economic sector, the palm oil price was by far the most important variable, followed by land price. For the social sector issues or variables, cultural matters came out first, followed by issues related to labour matters.

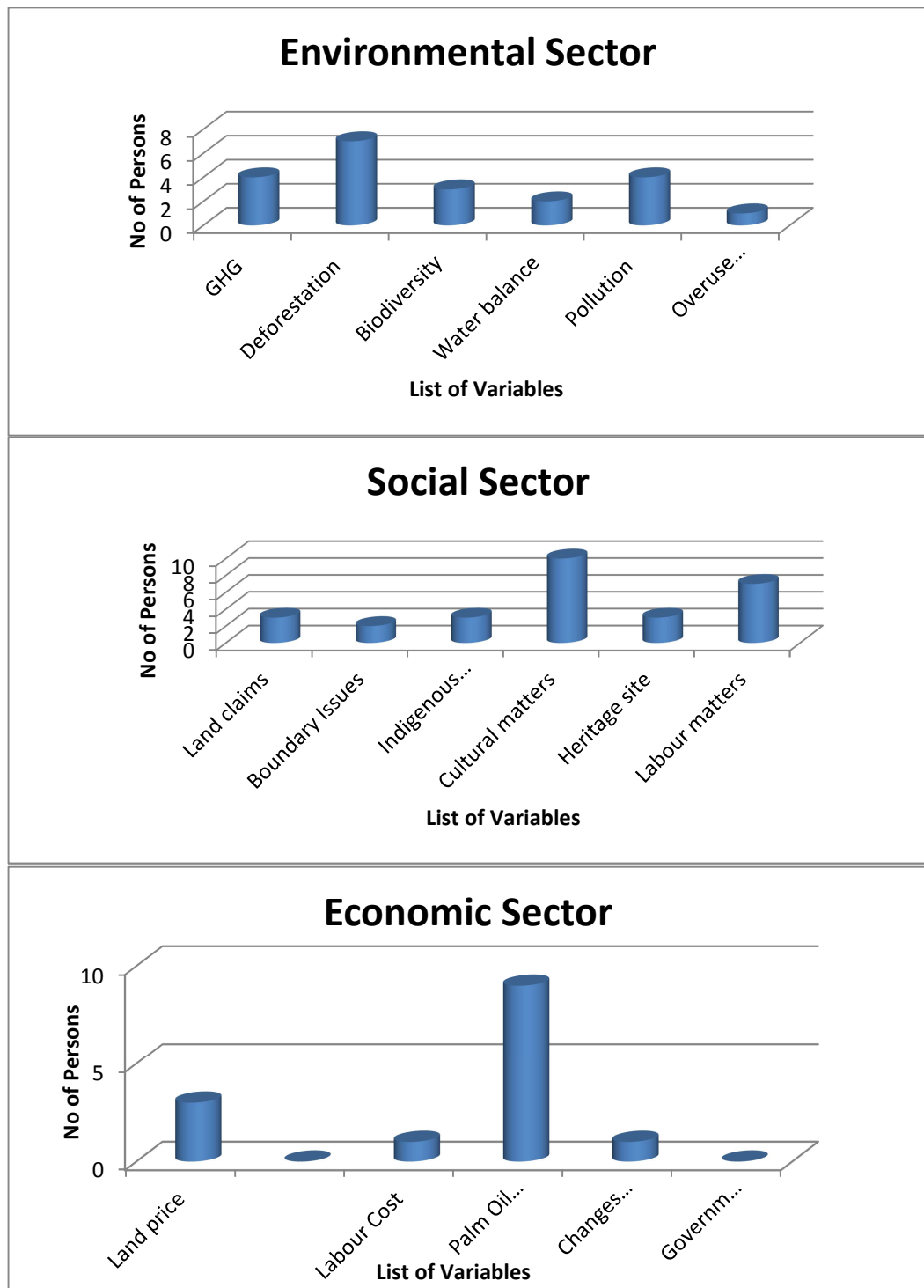


Figure 4.7: The Media's Priority Variables for the Selected Sectors

Stakeholders from the media also chose the price of palm oil as the most important variable followed by land price. Both these variables get the most attention from investors when they want to venture into the oil palm planation industry. As with all

other stakeholders, deforestation-related issues get the media's vote in the environmental sector, as this variable is a universal concern.

Media stakeholders chose cultural matters as the most important social variable. However, it is not clear why this choice was made.

4.17 Identification of Issues: Sectorial Awareness in the Palm Oil Industry

The stakeholders were interviewed using the following list of questions/ statements in order to assess their perceptions towards environmental awareness. Respondents were required to say whether they agreed or disagreed with the statements:

Part B

Question 1 - *Biodiversity management within the plantations is well understood and well managed.*

Question 2 - *Ecosystem biodiversity of resources nearby plantations is well understood and protected by growers/local community.*

Question 3 - *Best management practices for each land type (mineral soil, peat, etc.) is followed by Malaysian growers.*

Question 4- *Plantation land is managed well and is being put to its best use and has been considered for all other lost opportunities.*

Question 5 - *Sustainable agriculture practices are understood widely in the industry.*

Question 6 - *In my organisation, there is a widespread concern about the environmental sustainability of the oil palm industry.*

Question 7 - *Fluctuations of prices in the commodity market has a direct impact on sustainability investments in the oil palm industry.*

Question 8 - *Cultural and heritage-related matters on site is well understood and respected in plantations.*

Question 9 - *Oil palm industry is doing enough for long term sustainability.*

Question 10 - *Negative coverage that the industry gets in the media for sustainability is unjustified and completely unfair.*

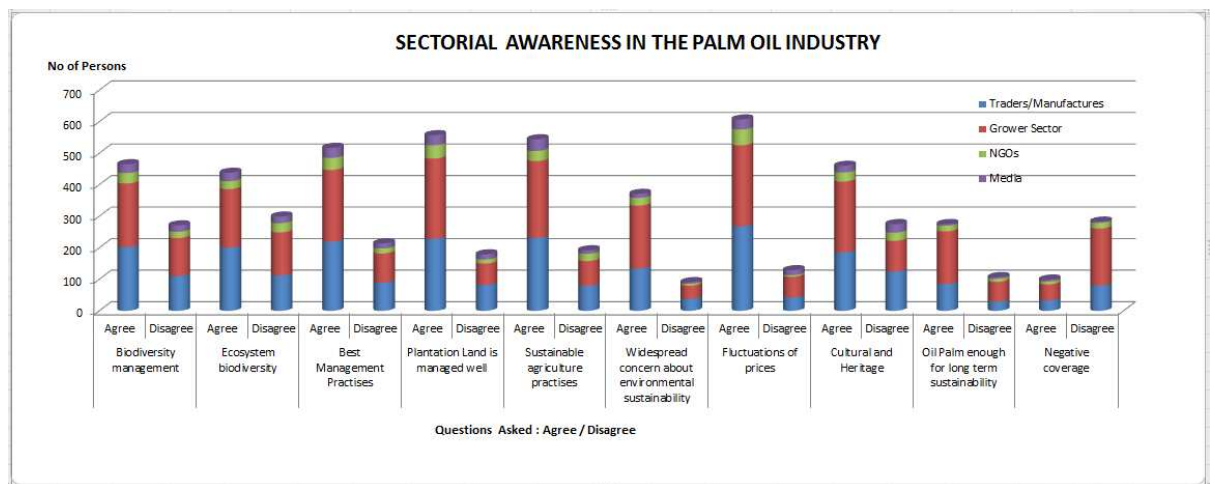


Figure 4.8: Sectorial Awareness in the Palm Oil Industry amongst Key Stakeholder Groups

Figure 4.8 reflects to a large extent the views of traders/manufacturers and growers concerning environmental awareness about the palm oil industry. In comparison, therefore, it reflects to a lesser extent the views of NGOs and the media concerning these issues. Most of the traders/manufacturers as well as the growers agreed with all the statements put to them in the questionnaire.

From their responses, we can also conclude that for both the social and economic sectors, the traders/manufacturers and growers perceive that:

- a. The value of the ecosystem's biodiversity of resources near to plantations is well understood and protected by growers/local community
- b. Biodiversity management within the plantations is well understood and well managed by the stakeholders
- c. Best management practices for each land type (mineral soil, peat, etc.) are followed by Malaysian growers
- d. Plantation land is managed well and is being put to its best use and has been considered for all other lost opportunities.
- e. Sustainable agricultural practices are understood widely in the industry.
- f. In their organisations, there is widespread concern about the environmental sustainability of the oil palm industry.
- g. Fluctuations of prices in the commodity market do have a direct impact on sustainability investments in the oil palm industry.
- h. Cultural and heritage related matters on site are well understood and respected in plantations.
- i. The oil palm industry is doing enough for its long term sustainability.
- j. Negative coverage that the industry gets in the media about sustainability is unjustified and completely unfair.

The largest differences between Agreement and Disagreement responses were noted in the following questions:

Part B: Q4 *Plantation land is managed well and is being put to its best use and has been considered for all other lost opportunity.*

- 228 traders/manufacturers, 255 growers, 32 media personnel and 42 NGOs agreed with the statement, whereas.

- 82 traders/manufacturers, 68 growers, 16 media personnel and 13 NGOs disagreed with the statement.

It can be concluded that a vast majority of the stakeholders agree with the statement.

Part B: Q5 – *Plantation land is managed well and is being out to its best use and has been considered for all other lost opportunity.*

- 231 traders/manufacturers, 244 growers, 37 media personnel and 32 NGOs agreed with the statement.

- 79 traders/manufacturers, 79 growers, 11 media and 23 NGOs disagreed with the statement.

It can be concluded that a vast majority of the stakeholders agree with the statement.

Part B: Q6 - *In my organisation, there is a widespread concern about environmental sustainability of the oil palm industry.*

- 135 traders/manufacturers, 200 growers, 13 media personnel and 24 NGOs agreed with the statement.

- 38 traders/manufacturers, 42 growers, 5 media personnel and 6 NGOs disagreed with the statement.

We can conclude that a vast majority of the stakeholders agree with the statement.

Part B: Q7- *Fluctuations of prices in the commodity market have a direct impact on sustainability investments in the oil palm industry.*

- 268 traders/manufacturers, 257 growers, 32 media personnel and 50 NGOs agreed with the statement.

- 42 traders/manufacturers, 66 growers, 16 media personnel and 5 NGOs disagreed with the statement.

We can conclude therefore that a vast majority of the stakeholders agree with the statement.

Part B: Q9 – *The oil palm industry is doing enough for its long-term sustainability.*

- 85 traders/manufacturers, 167 growers, 5 media personnel and 18 NGOs agreed with the statement.

- 25 traders/manufacturers, 63 growers, 5 media personnel and 10 NGOs disagreed with the statement.

We can conclude therefore that a vast majority of the stakeholders agree with the statement.

4.18 Identification of Issues: Land-related matters in the palm oil industry

The stakeholders were interviewed using the following list of questions to assess their perceptions towards land-related matters. The respondents were asked whether they agreed or disagreed with the statements:

PART C:

Question 1 - *Agricultural sustainability can be achieved in the oil palm plantations. It will be the first agricultural produce to be fully sustainable.*

Question 2 - *Scientific tools like the ISO's GHG measurements are NOT being used appropriately for the palm oil industry. Gaps and assumptions in these tools can be further improved or addressed for better use in this industry.*

Question 3 - *There are sufficient environmental data within the oil palm industry to manage its land resources well, and not suffer biodiversity loss.*

Question 4 - *The land bank is not large in Malaysia. The palm oil industry is being affected by the land assignments to other sectors.*

Question 5 - *The change in human migration is affecting the management of the plantations, especially from the villages to the cities by local community.*

Question 6 - *The commodity boom is affecting the land management of the plantations. More land is being assigned for oil palm plantations.*

Question 7 - *The media and its opinions affect the management of the plantations. Negative reports from the media help the local growers rethink their practices and improve their work.*

Question 8 - *The local industrial code of conduct is sufficient for managing the plantations. Malaysian Palm Oil Board's code is good enough for Malaysian land management.*

Question 9 - *Different countries have different value systems; therefore trading countries' values impact the land management of Malaysian plantations.*

Question 10 - *Social issues, especially land rights, have an impact on the management of the plantations. Settlements related to these matters take a lot of effort.*

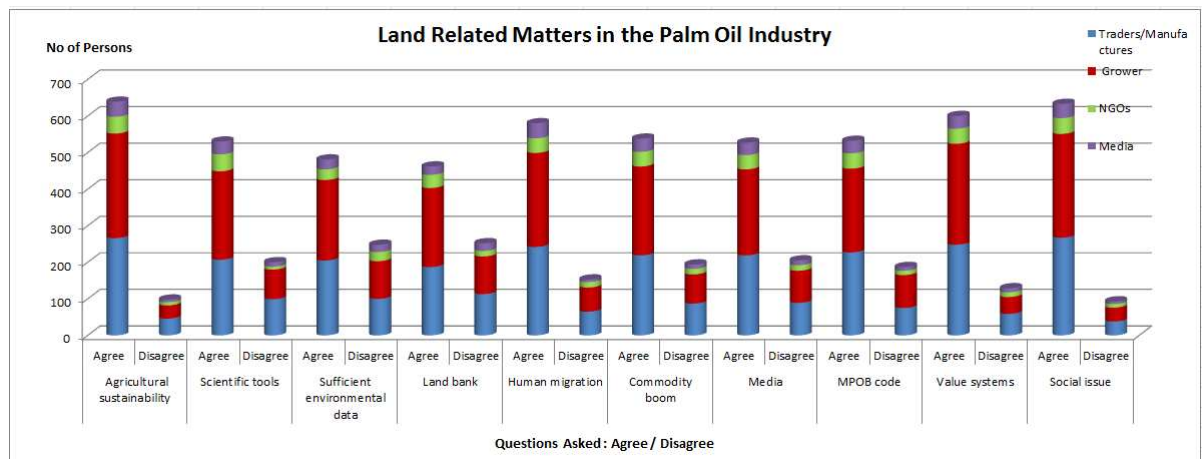


Figure 4.9: Perceptions of Land-Related Matters in the Palm Oil Industry amongst Key Stakeholder Groups

Figure 4.9: This figure largely reflects the views of traders/manufacturers and growers/local community as they make up the highest numbers among those surveyed. These stakeholders agreed with all the questions put forward to them. Therefore we can conclude that:

- Agricultural sustainability CAN be achieved in the oil palm plantations. It will NOT be the first agricultural produce to be fully sustainable.
- Scientific tools like ISO's GHG measurements are being used appropriately for the palm oil industry. Gaps and assumptions in these tools CAN be further improved or addressed for better use in this industry.

- c. There are sufficient environmental data within the oil palm industry to manage its land resources well, and reduce biodiversity loss.
- d. The land bank is not large in Malaysia. The palm oil industry is being affected by the land assignments to other sectors.
- e. The change in human migration is affecting the management of the plantations. This migration is especially occurring from the villages to the cities involving the local community.
- f. The commodity boom is affecting the land management of the plantations. More land is NOT being assigned for the oil palm plantations.
- g. The media and its opinions do affect the management of the plantations. Negative reports from media do NOT help the local growers rethink their practices and improve their work.
- h. The local industrial code of conduct is sufficient for managing the plantations. Malaysian Palm Oil Board's code is NOT good enough for Malaysian land management.
- i. Different countries have different value systems; therefore trading countries' values impact Malaysian land management of the plantations. A majority of the stakeholders do agree with this statement.
- j. Social issues, especially land rights, do NOT have an impact on the management of the plantations. Settlements related to these matters do take a lot of effort.

The largest differences in Agreement and Disagreement were found in the responses to the following questions:

Part C: Q1 - *Agricultural sustainability can be achieved in the oil palm plantations, and oil palm will be the first agricultural produce to be fully sustainable.*

- 266 traders/manufacturers, 286 growers, 41 media and 46 NGOs agreed with the statement.

- 46 traders/manufacturers, 36 growers, 7 media personnel and 9 NGOs disagreed with the statement.

We can conclude therefore that that all the stakeholders strongly agree with the statement.

Part C: Q5 - *The change in human migration is affecting the management of the plantations, especially from the villages to the cities by the local community.*

- 424 traders/manufacturers, 275 growers, 41 media personnel and 40 NGOs agreed with the statement.

- 65 traders/manufacturers, 66 growers, 7 media personnel and 15 NGOs disagreed with the statement.

A vast majority of the stakeholders therefore strongly agree with the statement.

Part C: Q9 - *Different countries have different value systems; therefore trading country's values impact Malaysian land management of the plantations.*

- Agreeable were 248 traders/manufactures, 276 growers, 35 media and 41 NGOS.

- Disagreeable were 59 traders/manufactures, 46 growers, 11 media and 13 NGOs

Where we can conclude that a vast majority of the stakeholders agree that: *Different countries have different value systems; therefore trading country's values impact Malaysian land management of the plantations.*

Part C: Q10 – *Social issues, especially land rights, have an impact on the management of the plantations. Settlements related to these matters take a lot of effort.*

- 267 traders/manufacturers, 284 growers, 39 media personnel and 43 NGOs agreed with the statement.

- 38 traders/manufacturers, 38 growers, 7 media personnel and 38 NGOs disagreed with the statement.

It can be concluded that a vast majority of the stakeholders agree with the statement.

4.19 Discussion on the Findings: The Perception Survey Analysis and Results

This chapter looked at perception as a “new” determinant or variable for oil palm plantation management in Malaysia. Perception towards the industry was captured, analysed and assessments were made about the sustainability of the palm oil industry.

The main findings from this chapter are:

a. Perception as a Management tool: To stakeholders, perception is their reality.

Perceptions may be good or bad, depending on the experiences the stakeholder groups might have had when engaging with the entity. Gaps exist between

stakeholders' perceptions and the entity's ideal perceptions of itself. Hence, perceptions have to be managed to ensure that a sound reputation of the palm oil industry is nurtured.

- b. **Perception Gaps between stakeholders:** The perception gaps among the stakeholders in Malaysia are not very large, based on the surveys carried out, but this more in view of the influence of US or European media reports in contrast to Malaysian or Indonesian media reports. This is most apparent from website and newspaper articles that are generated by NGOs based in Europe.
- c. **Old and new perceptions towards Palm Oil:** Previously, from the mid-1980s to late 1990s, the main perception propagated by the media in non-producing countries is that palm is highly saturated fat, and unhealthy for consumption. After a series of medical reports and tests to disprove this perception were undertaken by the producers, this perception has faded off.

The new perception is now focused on how damaging the oil palm plantations are, especially on their effect on climate change through greenhouse emissions and peat soil subsidence.

- d. **Sustainability Perceptions and Sale of Sustainable CPO:** In 2011 alone, 4.78 million tonnes of RSPO-certified oil in the market were unsold. (MPOC, 2012). Therefore even though sustainable production is promoted, there seem to be no takers for the produce, even when the premium for it is just US\$10-50 per tonne. For a fair price regime to prevail for the growers who make all the effort to

ensure that their produce is sustainable, and is then certified as sustainable, the other market players need to also financially support the endeavour.

- e. **Lack of Measurement and New data/Variables:** The perception issues that are working against palm oil are linked with the lack of measurable variables to determine the sustainability of palm oil. Additionally, variables that were previously considered unimportant, as well as perception issues about the sustainability of palm oil and the history of the industry are now the key determinants for perceptions about oil palm's lack of sustainability.
- f. **Survey results- Ranking of Variables:** The survey of the 742 respondent from this study from all the stakeholder groups showed that the most important variable for the agricultural produce is the palm oil price, followed by the total planted area for the crop. This perception did not differ among any of the stakeholder groups surveyed.
- g. **Survey results – Sustainability Awareness Amongst the Stakeholders:** the survey showed that the stakeholders were aware of the sustainability requirement for the industry. They agreed on the main features that are pertinent for the sustainable management of oil palm plantations in Malaysia, e.g. biodiversity maintenance, pollution control and use of scientific tools with valid assumptions.
- h. **Survey Results – Land Related Matters:** From the survey it was observed that the stakeholders were aware of issues concerning land matters and the oil palm

plantations. They understood what was required for sustainable management of land for the industry, and agreed to the need for the proper management of land claims and indigenous people's rights. They also felt that there was an overall lack of land for agricultural expansion in Malaysia.

- i. **The Forward Plan:** With the obvious gap between what the industry perceives and what is actually required for sustainability in managing the industry throughout its life cycle, intensive awareness rising is also required for all categories of stakeholders. As for the media perception, if it is skewed it should be corrected with strategic communication output via research and government outreach.

There is also a need to bridge the gap among the four key groups of industry stakeholders via data from this study, outreach and awareness campaigns. The perception survey has clearly shown the difference in opinion amongst the stakeholders and also the lack of knowledge. The need for the government or the state to ensure balanced growth via key agencies e.g. MPOC, MPOB and MPOA is also apparent, especially in the area of greater environmental awareness. Also there is a need to balance out the skewed views emerging from third party information sources. The main negative influence of palm oil production was seen in forest conservation, and this has to be ensured for the sustainability of Malaysia's natural resources in totality.

4.20 Overall Summary

Sustainable science is an important element of oil palm management. The issues are linked with the lack of measurable variables and varying needs amongst stakeholders. The perceptions of consumers and the media also impact the acceptability of the oil and its products.

Perception is an important tool in oil palm sustainability and the lack of measurable variables for sustainability creates unwarranted demands on the industry. The need for acceptable and scientifically unbiased measurement is clear, especially for new requirements or measurements. This study through its surveys showed that the palm oil price and total planted area are important variables for all the stakeholders interviewed in Malaysia.