

# Labour Requirements in the Malaysian Oil Palm Industry in 2010

Ramli Abdullah\*;  
Azman Ismail\* and  
Ayatollah Khomeini  
A Rahman\*

## ABSTRACT

*Malaysian oil palm industry is labour intensive especially in the oil palm plantations. This article estimated the total number of workforce in the Malaysian oil palm plantations in 2010 by carrying out a census in all the plantations. It is estimated that there were 446 368 workers in 2010. This number consists of mainly foreigners of about 69% and locals of about 31%. The small number of local participation indicates their lack of interest to work in the industry and this urged the industry to resort to employing foreigners. Foreign workers worked for various critical jobs which are labour intensive, particularly field jobs such as harvesting and collecting fruits, weeding work and other general work. Majority of them are Indonesians, in addition to other nationalities such as Bangladeshi, Thais, Myanmars, etc. The labour land ratio is 1:9.95 which means that one worker can cover about 10 ha. The study also shows that oil palm plantations in Sarawak and in Peninsular Malaysia appeared to face critical shortage of labour as compared to Sabah. As an ideal situation, the oil palm plantations as a whole would require a total of 493 512 workers for the 4.19 million hectares of planted areas under oil palm in 2010.*

## INTRODUCTION

A foreign worker in Malaysia is defined as someone who is not a Malaysian, unskilled or semi-skilled, working in Malaysia using Temporary Employment Visit Pass produced by the Malaysian Immigration Department (Zulnasri, 2010). These workers began to arrive in the country since late 1970s when the country started to face the problem of labour shortage. The shortage worsened in the 1980s and it still persists now. The Malaysian government had attempted to resolve the problem and tried to bring about changes. Such efforts, however,

have not shown concrete desirable outcome (Atto, 2010).

As the oil palm planted areas expanded from 0.6 million hectares in 1975 to 4.85 million hectares in 2010 (Figure 1), the requirements for total labour has similarly increased. According to Faizah (2010), plantation sector requires the biggest number of workers, employing 500 817 in 2009. Although this sector offers a number of employment opportunities, it is not attractive enough for the local workers since the industry is being perceived by them as dirty, dangerous and difficult. They shied away from this hard physical labour especially in

\* Malaysian Palm Oil Board,  
P. O. Box 10620,  
50720 Kuala Lumpur,  
Malaysia.

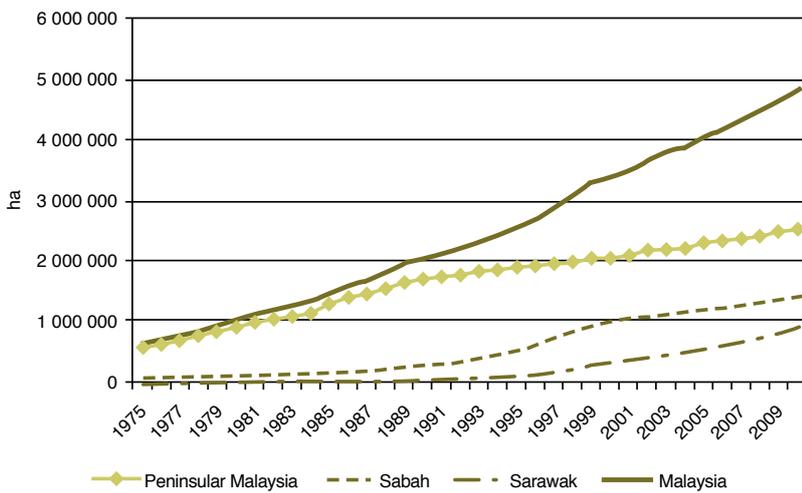


Figure 1. Oil palm planted areas in Malaysia.

plantations, thus, causing labour shortage. Due to this, foreign workers are being employed.

Thus, out of 500 817 workers in the country, about 24% (or 131 741 workers) were local workers and about 74% (or 369 076 workers) were foreigners in 2009. Local workers worked mainly as harvesting mandore, general mandore, staff and executives while foreigners were mostly employed in the other job categories, mainly as harvesters, fresh fruit bunch (FFB) collector, loose fruit collector and field workers. The proportions of foreigners were exceeding 77% in each of these job categories (Faizah, 2010).

By regions, Peninsular Malaysia employed the most number of workers due to its larger oil palm areas, followed by Sabah and Sarawak. Foreigners made up 63.66%, 86.39% and 74.54% respectively and worked mainly in the above mentioned critical job categories.

The presence of foreign workers in the Malaysian oil palm industry can have negative and positive impacts. If their number is reduced by 30%, Malaysian export earnings could shrink as much as RM 10 billion (Mamat, 2010). Furthermore, when they leave the country after their work permits expire, they would go with the

training that they have received and new intakes will show a drop in productivity, thus leading to higher costs. It is also generally believed that their employment has depressed wages. Socially, their presence if uncontrolled can be a problem to the country. However, on the positive side, with their presence, they could collect completely bunches and loose fruits, thus reducing the industry's losses (Mahbob, 2010).

Knowing well the above scenario, it is important then to study the labour situation in the oil palm industry in a holistic manner. There is a need to review the policy and strategy on foreign labour in the palm oil industry and manage it in a more integrated manner among the ministries, agencies and industry associations (Mamat, 2010). Furthermore, without a revaluation in labour productivity and acceleration in its yield growth, palm oil's competitive advantage will vanish (Nageeb, 2010). Thus, the study helps to understand the need of labour and formulate strategies and policies of attracting more locals to work in the industry.

#### LABOUR ISSUES

Plantation work in the oil palm industry has always been

monopolised by foreign workers for a long time. The industry has resorted to this measure out of necessity. The trend is not likely to change in the foreseeable future. There is no indication that locals have shown interest in jobs under that category. Over-dependence on foreign workforce can pose a threat to the security and stability of the industry in particular and the country in general. This being the case, concrete steps must be taken by all the relevant parties to bring about solutions to the problems.

In Sarawak, one of the problems faced by the oil palm growers is related to foreign labour. According to Reduan (2010), if the problem is left unchecked and unresolved, it will result in adverse and detrimental implications to the growth of the oil palm industry in the state which has targeted to develop one million hectares of oil palm by 2010. Sarawak only allows foreign workers from Indonesia to work in the industry. Due to the labour shortage problem, Sarawak has the potential to lose revenue and profits from the loss of crops and there would be a delay in its development programme. Sarawak also has to face challenges such as, quality and productivity of Indonesian labours, illegal poaching of Indonesian labours by smallholders, restrictions and difficulties by authorities and high medical charges by government hospitals (Reduan, 2010).

In Sabah, heavy dependence on foreign labour can affect the income of the oil palm producers, especially during festive seasons (Ayat and Faizah, 2009). During such seasons, foreign workers would leave the country and in their absence the harvesting frequency would reduce. This will affect the income of the oil palm producers. Mamat (2010) also mentioned that labour shortage in Sabah is critical because Indonesian workers did not come back after

their festive seasons holidays as they could get jobs with similar wages in Kalimantan.

Many activities and programmes had been carried out in Sabah to attract local workers (Atto, 2010). For, example, the Minister of Human Resources and the Secretary General of the Ministry came to one oil palm plantation in Lahad Datu to officiate at one function called *Program Penggalakkan Pekerja Tempatan Berkerja di Ladang* in 2008. Out of 874 local job seekers in Sabah, who managed to get employment in the oil palm industry, none of them can be categorised as a plantation worker. In 2009, labour department of Sabah organised 37 jobs fairs all over the state and some were specifically meant for the oil palm industry. In the same year, the Deputy Minister of Human Resources also came to one oil palm estate in Telupid, Sandakan for similar purpose. About 771 local Sabahans were recruited by the oil palm industry via the various job fairs held state wide and again none fell under the estate worker category.

Based on five year five months immigration rule for foreign workers, *i.e.* after working five years the immigrant worker must return to country of origin and stay five months before being allowed to return. This ruling has caused great losses of efficient experienced workers in all categories resulting in the industry losing hundreds of millions of ringgits each year in Sabah. These losses can only be avoided if there are local trained workers to replace them, or new recruitment can be made from the dwindling sources. Those who have been made to stay away for five months did not return. They found work in oil palm estates newly opened in their own country. Therefore, in the future, Malaysia will lose more efficient and experienced workers.

It shows that solutions for these problems need to be identified. Without enough labour, the Malaysian palm oil industry could collapse. Therefore, the short- and long-term actions need to be taken and implemented. To find out the size of this problem, and the best solution, some work needs to be carried out.

## OBJECTIVES

### General Objective

- To propose short- and long-term plans to overcome the problem of high dependency on foreign labour in oil palm plantations.

### Specific Objectives

- To undertake a comprehensive study on labour requirement in 2010.
- To estimate total population of foreign and local labour in 2010.
- To calculate labour land ratio according to job categories.

## METHODOLOGY

The project had been carried out using a census technique. This means that all oil palm estates or plantations in Malaysia were included in the study. The steps involved are:

- drafting of questionnaires with consultation from the industry experts;
- posting of questionnaires to all plantations and estates. This was followed by e-mails, faxes and phone calls to those not reachable by post;
- seeking cooperation from Malaysian Palm Oil Association (MPOA) and East Malaysia Plantations Association (EMPA) to speed up the return of the questionnaires and increase the response rate. At the same time, estates were again

reminded of the urgency of the project through a series of phone calls and reminder letters;

- keying in of data using Microsoft Office Excel; and
- analysing of data using Excel and SPSS package.

## LITERATURE REVIEWS

A review on literature on labour in oil palm industry revealed a number of issues. Most authors agree that shortage of labour is one of the main problems in the industry. In this respect, plantation owners are actually at a cross-road, confronted with many problems which mostly boil down to labour issues. The industry is confronted with the dilemma of capital substitution for labour, absence of mechanical harvesting machine, stagnation in labour and machine productivity for estates that have already introduced mechanisation and rising cost of machineries (Leng, 2000).

Kamarudzaman and Hashim (1998) clearly mentioned that the oil palm industry is currently facing problems of labour shortage and increasing cost of production. In order for it to remain competitive and viable, one of the ways is to enhance mechanisation in its operations so that labour productivity can be increased and hence reduce its dependency on labour. According to the authors, the overall labour:land ratio in the 1980s was in the region of 1:6 ha to 1:7 ha. With the introduction and adoption of the various mechanisation methods particularly with respect to in-field fresh fruit bunch (FFB) collection estates have been able to reduce labour:land ratio to 1:10 ha.

The high foreign content in the workforce of the plantation industry is a phenomenon which had existed for a long time (Atto, 2010). The country failed to attract

local employment seekers to be in the oil palm workforce even with concerted efforts by the industry and the government. The local workers view manual work in the industry negatively mainly due to the location of oil palm plantations are always rural in nature, workers must wake up very early and rising level of education has allowed many to find other jobs. It is a challenge for both the government and the industry to change their mindset, attitude and perception.

Mamat (2010) was in the opinion that foreign workers help in a way to increase Malaysian export earnings. This is because if their number in the country were reduced by 30%, Malaysian palm oil export earnings could shrink as much as RM 10 billion a year. Consequently, the policy and strategy on foreign labour in the palm oil industry should be reviewed and managed in a more integrated manner among the ministries, agencies and industry associations.

Mahbob (2010) similarly had the same opinion that the oil palm industry has a big problem on labour shortage and the industry incur losses as bunches and loose fruits were not collected completely. In addition, foreign workers have to leave the country as their work permit expires and they would bring with them the training they had been given. New intakes will automatically show a drop in their productivity.

### SURVEY RESULTS

#### Response Rate

The census was carried out for about five months starting from October 2010 until February 2011. All the 4237 oil palm plantations in Malaysia in 2010 were included in the census. They were distributed regionally in Peninsular Malaysia (2443 estates), Sabah (1477), and Sarawak (317) (Figure 2).

By end of February 2011, a total of 4049 estates or 95.56% of them responded. The study received the highest response rate of 98.44% or 2405 estates in Peninsular Malaysia, followed by those in Sarawak (93.06% or 295 estates) and Sabah (91.33% or 1349 estates) (Figure 2). The areas covered by the estates who responded was 3.85 million hectares, representing 92.0% of total estates areas of 4.19 million hectares (Table 1). Many who did not respond are those whose estates are located in remote areas in particular with post box addresses and there were also questionnaires undelivered.

The study also covered a matured oil palm area of 3.23 million hectares. Out of this, that of Peninsular Malaysia represented about 52% (1.69 million hectares), Sabah about 28% (0.91 million hectares) and Sarawak about 19% (0.62 million hectares) (Table 1).

#### Estimated Total Number of Workforce

The study estimated that the total number of work-force in the Malaysian oil palm plantations was at 446 368 in 2010 (Figure 3). The total work-force was distributed regionally into Peninsular Malaysia (185 384 workers or 41% of total number of workers), Sabah (172 630 workers or 39%) and Sarawak (88 354 workers or 20%). Thus, oil palm plantations in Peninsular Malaysia engaged slightly higher number of workers than Sabah but about doubled that of Sarawak.

Several number of job categories were analysed which include harvesting mandore, general mandore, harvester and collector, field worker, other general worker, executive and staff. From these job categories, harvesting and collecting FFB employed the biggest number of workers, engaging 192 973 workers or 43% of 446 368 oil palm plantation workers in 2010 (Figure 4). They normally work in teams and they can change their roles within the harvesting teams from cutting to loose fruits collection or FFB evacuation. Next is the field work which the industry had recruited 117 859 workers (or 27%). Field workers are engaged in activities such as weeding, pruning, pest and disease control as well as fertiliser application. The third largest job category is other general workers which include security guard, drivers, drivers of agricultural machines, gardeners, etc.

Other jobs usually require less labour such as staff comprising about 5% of the workers (or 23 621), general mandores 3% (or 10 968) and harvesting mandores 2% (or 9336) and executives 2% (or 9610) (Figure 4). Staff includes those clerical staff who work at the administration level while the jobs of general mandores include

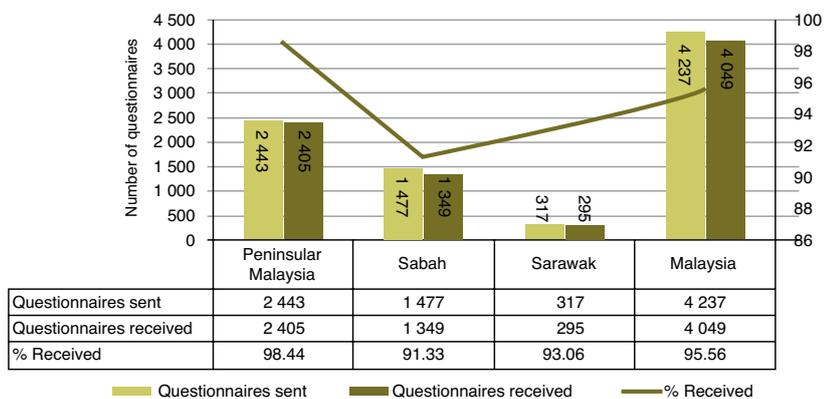


Figure 2. Survey response by region as of February 2011.

**TABLE 1. TOTAL OIL PALM PLANTED AREAS FROM THE RESPONDENTS OF THE SURVEY (ha)**

	Peninsular Malaysia	Sabah	Sarawak	Malaysia
Planted areas	2 088 380.1	1 236 324.5	861 127.6	4 185 832.2
Total areas from survey	2 051 128.4	1 028 010.8	772 470.0	3 851 609.2
Percentage of surveyed areas from total (%)	98.2	83.2	89.7	92.0
Matured areas from survey	1 691 912.0	913 922.4	619 559.1	3 225 393.5

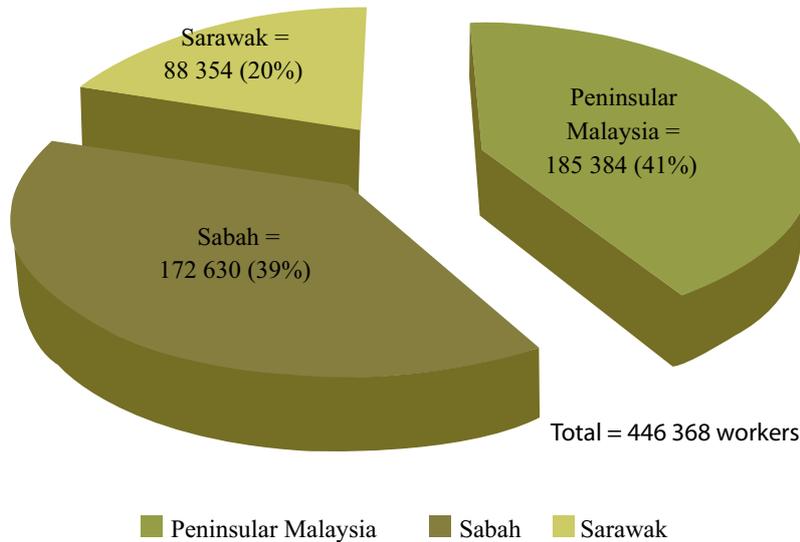
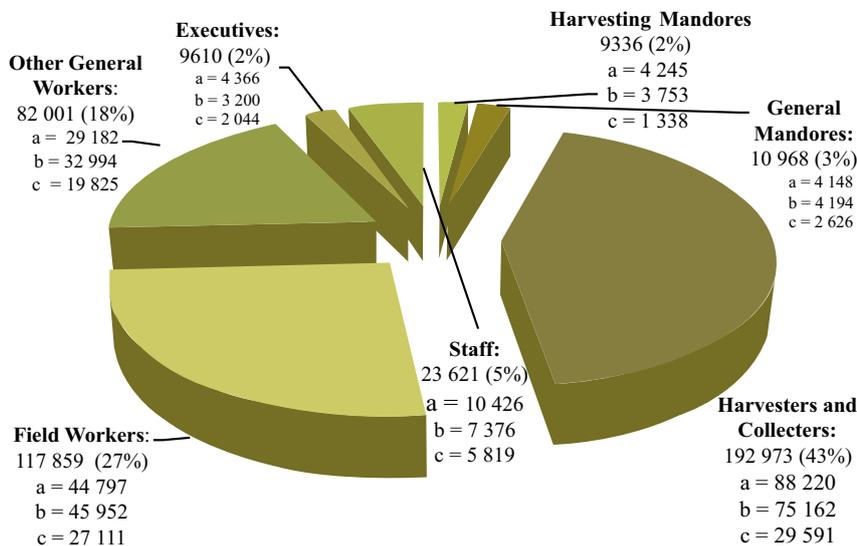


Figure 3. Total number of Malaysian oil palm plantation workers in 2010.



Note: a = Peninsular Malaysia; b = Sabah; and c = Sarawak.

Figure 4. Malaysian oil palm plantation workers by categories and by regions in 2010.

overseeing and supervising field operations such as weeding and fertiliser application, etc. Another type of mandore is the harvesting mandores who will oversee harvesting operation in particular

in ensuring the harvesting standard, recording harvesters' daily output and overseeing loading of FFB onto the transporters. At the administrative level, there are executives being employed by

the oil palm plantations. These include managers, senior assistant managers, assistant managers, cadet planters and field conductors.

Hence, the number of labour estimated for total field workers as a whole (consisting of harvesting mandore, general mandore, harvester and loose fruit collector, field worker, and other general worker) is 413 137, representing 92.56% of estimated total workers in Malaysian oil palm plantations in 2010 while that for total executives (staff and executives) is about 7.44% (or 33 231).

Harvesters and collectors in Peninsular Malaysia (88 220) outnumbered those in Sabah (75 162) and in Sarawak (29 591) (Figure 4). Peninsular Malaysia also had engaged more harvesting mandores, staff, and executives than Sabah and Sarawak. In contrast, Sabah employed more general mandores, and field workers than Peninsular Malaysia and Sarawak. However, almost equal share of general workers was recorded in Peninsular Malaysia and Sabah. Sarawak engaged the least number of workers in all job categories for oil palm in Malaysia.

### Estimated Number of Foreign Workers

As mentioned above, the Malaysian oil palm industry faces shortage of labour. This is evident from the survey which shows that out of 446 368 workers in the oil palm plantations in 2010, the industry employed a total of 307 974 foreign workers compared

TABLE 2. FOREIGN vs. LOCAL WORKERS

Job categories	Malaysia			% Foreign	Foreign local ratio
	Local	Foreign	Total		
Harvesting mandores	4 581	4 755	9 336	50.93	1.03
General mandores	6 484	4 484	10 968	40.88	0.69
Harvesters and fruit collectors	31 747	161 226	192 973	83.54	5.08
Field workers	31 489	86 370	117 859	73.28	2.74
Other general workers	32 863	49 138	82 001	59.92	1.49
Subtotal field workers	107 164	305 973	413 137	74.06	2.85
Executives	9 095	515	9 610	5.34	0.06
Staff	22 135	1 486	23 621	6.29	0.07
Subtotal executive	31 230	2 001	33 231	6.02	0.06
Total	138 394	307 974	446 368	69.00	2.22

to 138 394 locals (Table 2). Thus, it is clear that more foreigners (about 69%) are working in the industry than the locals (about 31%) or in terms of ratio, it is two foreigners to one local. Out of 307 974 foreigners, 305 973 of them (or 99.35%) worked as field workers as a whole, leaving the balance of 2001 working at the administrative level. At the same time, they were the majority at the field work (74.06%) compared to locals with a number of 107 164 people.

Among the job categories, foreign field workers occupied mostly the post of harvester and fruit collector (52.69% or 161 226 people), followed by the number of field workers (86 370) and other general workers (49 138) (Table 2). In comparison, the number of locals working in these three types of job categories was almost balanced at about 32 000 workers each. In term of ratio, there were five foreign harvesters and fruit collectors to one local while for field worker and other general worker, they are 3:1 and 1:1 respectively.

The locals mostly work as administrative staff and executives. Table 2 shows that there were 9095 locals working as executives and 22 135 locals as staff. However, there is presently a tendency of

plantation companies hiring more foreign workers as executives (515 workers) and staff (1486), giving a subtotal of foreigners of 2001. These are due to lack of interest of locals to work in the industry and retirement of senior local officers/staff.

#### Foreign Labour by Country of Origin

The immigration laws are different in Peninsular Malaysia, Sabah and Sarawak, especially in term of approval for work permit for foreign labour by country of origin. The laws in Peninsular Malaysia allow recruitment of workers from 14 countries of origin, while Sabah can recruit from Indonesia and Philippines and Sarawak only from Indonesia. The composition of the foreign workers by main country of origin is shown in Table 3. Nationwide, they were about 89.61% foreign workers from Indonesia, 5.13% from Bangladesh, 3.90% from Philippines, 1.36% from other countries in 2010.

All foreign workers in Sarawak were from Indonesia (60 238 people) while in Sabah they were mostly from Indonesia (91.59% or 125 432 people) and a small number from Philippines (8.41% or 11 520) in 2010 (Table 3). This is due to the immigration

laws in the two states which have such restrictions on foreign workers. Since Peninsular Malaysia has more freedom on selecting workers from various countries of origin, there were also other nationalities besides Indonesia. As such, 81.50% (or 90 292 people) were from Indonesia, 0.43% (or 479) from Philippines, 14.27% (or 15 813) from Bangladesh, and 3.79% (4200) from other countries in 2010.

The distribution of foreign workers in 2010 by work category in Peninsular Malaysia, Sabah and Sarawak is shown in Tables 4, 5 and 6 respectively. These tables show that foreign workers worked mostly as harvesters and collectors, field workers and other general workers in 2010. Only 809 of them worked as executives and 1054 as administrative staff in the three regions. Interestingly, Sabah engaged the highest number of foreigners working as executives (622) and administrative staff (978) than Peninsular Malaysia (160 and 25) and Sarawak (27 and 51).

#### Labour Land Ratio

The oil palm industry is labour intensive. The survey shows that the labour: land ratio for the industry in Malaysia is 1:9.95, meaning that one worker in general

**TABLE 3. FOREIGN WORKERS FROM MAJOR COUNTRY OF ORIGIN**

Main country of origin	Peninsular Malaysia	Sabah	Sarawak	Total No. of workers	%
Indonesia	90 292	125 432	60 238	275 962	89.61
Bangladesh	15 813	-	-	15 813	5.13
Philippines	479	11 520	-	11 999	3.90
Others	4 200	-	-	4 200	1.36
<b>Total</b>	<b>110 784</b>	<b>136 952</b>	<b>60 238</b>	<b>307 974</b>	<b>100.00</b>

**TABLE 4. FOREIGN WORKERS IN PENINSULAR MALAYSIA BY JOB CATEGORY**

Job categories	Indonesia	Bangladesh	Thailand	Nepal	Phillipines	Myanmar	Others	Total No. of foreigners
Harvesting mandores	811	50	1	1	13	5	39	920
General mandores	409	29	6	1	1	1	28	475
Harvesters and collectors	59 722	7 249	479	83	97	85	765	68 480
Field workers	20 380	6 192	222	210	86	154	1 017	28 261
Other general workers	8 839	2 293	129	250	280	15	657	12 463
<b>Subtotal field workers</b>	<b>90 161</b>	<b>15 813</b>	<b>837</b>	<b>545</b>	<b>477</b>	<b>260</b>	<b>2 506</b>	<b>110 599</b>
Executives	113	-	-	12	2	-	33	160
Staff	18	-	1	-	-	-	6	25
<b>Subtotal executive</b>	<b>131</b>	<b>-</b>	<b>1</b>	<b>12</b>	<b>2</b>	<b>-</b>	<b>39</b>	<b>185</b>
<b>Total</b>	<b>90 292</b>	<b>15 813</b>	<b>838</b>	<b>557</b>	<b>479</b>	<b>260</b>	<b>2 545</b>	<b>110 784</b>

**TABLE 5. FOREIGN WORKERS IN SABAH BY JOB CATEGORY**

Job categories	Indonesia	Philippines	Total No. of foreigners	%
Harvesting mandores	2 685	128	2 813	2.05
General mandores	2 794	264	3 058	2.23
Harvesters and collectors	60 197	4 501	64 698	47.24
Field workers	35 692	4 265	39 957	29.18
Other general workers	22 788	2 038	24 826	18.13
<b>Subtotal field workers</b>	<b>124 156</b>	<b>11 196</b>	<b>135 351</b>	<b>98.83</b>
Executives	574	48	622	0.45
Staff	703	275	978	0.71
<b>Subtotal executive</b>	<b>1 277</b>	<b>323</b>	<b>1 600</b>	<b>1.17</b>
<b>Total</b>	<b>125 433</b>	<b>11 519</b>	<b>136 952</b>	<b>100</b>

works for about 10 ha of oil palm land (*Table 7*). This has led to the recruitment of 446 368 total work-force for the total oil palm plantation areas of about 3.85 million hectares. Among the jobs, harvesters and fruit collectors is the most labour intensive category, employing 192 973 workers (*Table*

2) who worked on 3.23 million hectares of matured areas (*Table 7*). This gives a ratio of 1:17.19 (*Table 7*) which implies that one worker in general can harvest an area of 17.19 ha. Next come field workers with a total of 117 859 working on a total land area of 3.85 million hectares (total land covered by the

survey) and with a ratio of 1:32.68. This is followed by other general workers with a total number of workers equaled 82 001 and with a ratio of 1:46.97.

On regional basis, the labour land ratios for Peninsular Malaysia, Sarawak and Sabah are 1:11.06, 1:5.95, and 1:8.74 respectively and

TABLE 6. FOREIGN WORKERS IN SARAWAK BY JOB CATEGORY

Job categories	Indonesia	Total No. of workforce	% Indonesia
Harvesting mandores	940	1 338	70.25
General mandores	849	2,626	32.33
Harvesters and collectors	32 060	29 591	108.34
Field workers	15 857	27 111	58.49
Other general workers	10 455	19 825	52.74
Subtotal field workers	60 161	80 491	74.74
Executives	27	2 044	1.32
Staff	51	5 819	0.88
Subtotal executive	78	7 863	1.00
Total	60 239	88 354	68.18

TABLE 7. LABOUR LAND RATIO OF MALAYSIAN OIL PALM PLANTATION WORKERS BY REGIONS IN 2010

		Peninsular Malaysia	Sabah	Sarawak	Malaysia
Actual	Total planted areas in 2010 (ha)	2 088 380.15	1 236 324.5	861 126.61	4 185 831.26
From survey	Total areas covered (ha)	2 051 128.38	1 028 010.81	772 470.04	3 851 609.23
	Total matured areas (ha)	1 691 912.03	913 922.39	619 559.05	3 225 393.47
	Total No. of workers	185 384	172 630	88 354	446 368
Computed labour land ratio for:					
	Harvesting mandores	420.14	243.52	463.05	355.29
	General mandores	494.49	245.11	294.16	351.17
	Harvesters and collectors	20.22	12.16	20.94	17.19
	Field workers	45.79	22.37	28.49	32.68
	Other general workers	70.29	31.16	38.96	46.97
	Executives	469.80	321.25	377.92	400.79
	Staff	196.73	139.37	132.75	163.06
	Total	11.06	5.95	8.74	9.95

Note: labour land ratio for harvesting mandores, harvesters and fruit collectors is calculated based on matured areas. Others are based on total areas covered in the survey.

the corresponding total numbers of workers are 185 384, 88 354 and 172 630 (Table 7). By job category, the ratios for the harvesters and fruit collectors, field workers and other general workers are 1:20.22, 1:45.79, and 1:70.29 respectively for Peninsular Malaysia, while for Sabah are 1:12.16, 1:22.37, and 1:31.16 and for Sarawak are 1:20.94, 1:28.49, and 1:38.96 respectively. Peninsular Malaysia employed 88 220 harvesters and fruit collectors, 44 797 field workers, and 29 182 other general

workers. Meanwhile, Sabah employed 75 162 harvesters and fruit collectors, 45 952 field workers and 32 994 other general workers and Sarawak employed 29 591 harvesters and fruit collectors, 27 111 field workers and 19 825 other general workers.

#### Labour Shortage

The survey shows that the oil palm industry in Malaysia is facing a shortage of labour, amounting to 42 707 workers in 2010 (Table 8). Peninsular

Malaysia had the biggest number of shortage of 20 295 while those of Sabah and Sarawak were 12 197 and 10 215 respectively. Out of the total number of shortages of 42 707 workers, 96.52% (or 41 225 of them) were in the category of total field workers, out of which field upkeep, harvesting and fruit collection and other general works were the three main job categories that were critically in need of additional workers. Total shortages of 22 715 harvesters and fruit collectors, 12 246 field workers and

**TABLE 8. ESTIMATED LABOUR SHORTAGE ACCORDING TO JOB CATEGORIES AND REGION**

Job category	Peninsular Malaysia	Sabah	Sarawak	Malaysia
Harvesting mandores	363	179	127	669
General mandores	291	156	196	643
Harvesters and fruit collectors	10 828	6 742	5 145	22 715
Field workers	5 917	3 440	2 889	12 246
Other general workers	2 341	1 215	1 396	4 952
Subtotal field workers	19 740	11 732	9 753	41 225
Executives	156	152	153	461
Staff	399	313	309	1 021
Subtotal executives	555	465	462	1 482
<b>Total</b>	<b>20 295</b>	<b>12 197</b>	<b>10 215</b>	<b>42 707</b>

**TABLE 9. ANALYSIS ON LAND LABOUR RATIO**

Items	Peninsular Malaysia	Sabah	Sarawak	Malaysia
Total planted area (estates)	2 088 380	1 236 325	861 127	4 185 831
Total labour*	261 048	154 541	107 641	523 229
Total workforce in 2010 (from survey)	185 384	172 630	88 354	446 368
Difference**	75 664	-18 089	19 287	76 861
Shortage in 2010 (from survey)	20 294	12 196	10 215	42 707
Land labour ratio***	11.06	5.95	8.74	9.95

Note: \*land labour ratio as guided by Malaysian Immigration Department (1:8).

\*\*+ve means shortage, -ve means over supply of labour.

\*\*\*based on survey.

4952 other general workers were reported in the survey. Shortages in both types of mandores were quite minimal, less than 700 each. At the administrative level, a total shortage of 461 executives was estimated while a slightly higher number of 1021 staff shortage was reported.

All the regions also reported shortages mainly for the three critical jobs, namely field upkeep, harvesting and fruit collection and other general works. Shortages for these three job categories constituted more than 96% of total field workers in each of the regions. Together with all the mandores, shortages for total field workers were 19 740 or 97.3% of total shortage for Peninsular Malaysia, 11 732 or 96.2% for Sabah and 9753 or 96.7% for Sarawak.

Hence, oil palm plantations in Peninsular Malaysia reported

more serious shortage of workers than those in Sabah and Sarawak. However, if shortage of labour is analysed according to response rate and land area, Sarawak shows relatively higher shortage. Sarawak had a total labour shortage of 10 215 workers while the shortage in Sabah and Peninsular Malaysia were 12 196 and 20 294 workers respectively. These numbers do not reflect the seriousness of labour shortage in each region if other factors such as total planted areas and total labour requirement are taken into consideration. As indicated in *Table 9*, Malaysian estates owned 4.19 million hectares in 2010; distributed regionally into Peninsular Malaysia with 2.09 million hectares, Sabah with 1.24 million hectares, and Sarawak with 0.86 million hectares. Guidance from Immigration Department in deciding the intake of foreign

workers is 1 worker: 8 ha. Coupled with the data on total workforce from the survey, there was a balance of 76 861 workers in Malaysia. From this, the table shows that Peninsular Malaysia and Sarawak had a balance of 75 664 and 19 287 workers respectively while Sabah had a surplus of 18 089 workers. Due to the shortage in Peninsular Malaysia and Sarawak, as reported by the plantations through the census, their land labour ratios are high, meaning that one worker has to work bigger hectareage (11.06 ha in Peninsular Malaysia and 8.74 ha in Sarawak) compared to oversupply situation in Sabah where one worker worked only 5.95 ha. Thus, the survey revealed that the seriousness of labour shortage is actually in Peninsular and in Sarawak.

**TABLE 10. ESTIMATED WORK-FORCE REQUIREMENT IN OIL PALM PLANTATIONS BY JOB CATEGORIES**

Job category	Peninsular Malaysia	Sabah	Sarawak	Malaysia
Harvesting mandores	4 516	3 857	1 450	9 823
General mandores	4 423	4 583	2 900	11 906
Harvesters and fruit collectors	100 103	81 364	34 668	216 135
Field workers	50 668	51 227	29 846	131 741
Other general workers	32 891	34 428	21 854	89 173
<b>Subtotal field workers</b>	<b>192 602</b>	<b>175 459</b>	<b>90 718</b>	<b>458 779</b>
Executives	4 402	3 168	2 177	9 747
Staff	10 925	7 884	6 177	24 986
<b>Subtotal executives</b>	<b>15 327</b>	<b>11 052</b>	<b>8 354</b>	<b>34 733</b>
<b>Total</b>	<b>207 929</b>	<b>186 511</b>	<b>99 072</b>	<b>493 512</b>

### WORK-FORCE REQUIREMENT

Since the survey response was not 100%, it is deemed necessary to compute total work-force requirement in the industry in 2010. It is estimated that Malaysian oil palm industry would require ideally a total number of 493 512 workers to operate in the total planted area of 4.19 million hectares in 2010. *Table 10* shows that Peninsular Malaysia would require 207 929 workers, while Sabah and Sarawak would require 186 511 and 99 072 workers respectively to work in the existing areas in 2010. Total requirement for labour in Peninsular Malaysia is critical for total field works, amounting 192 602 workers (92.6%) out of a total requirement of 207 929 workers. Similarly with Sabah and Sarawak, the same group of workers would require 175 459 workers (or 94.1%) and 90 718 workers (or 91.6%) respectively.

Job wise, the country would require a total of: 1) 458 779 workers in total field upkeep works; 216 135 harvesters and fruit collectors, 131 741 field workers, 89 173 general workers, 9823 harvesting mandores and 11 906 general mandores; and 2) 34 733 in total staff work; 9747 executives and 24 986 staff (*Table 10*).

Considering total demand of 493 512 work-forces, there is an approximate 8.6% of labour shortage faced by the industry which is due to lack of labour supply. Supply of labour is becoming tight especially the Indonesians although no complaints made as regard to quota availability. Oil palm estates in Peninsular can source labour from 14 foreign countries nevertheless Indonesians and Bangladeshis are the most preferred because the security bond imposed is comparatively cheaper (RM 250 for Indonesians and RM 500 for Bangladeshis). Lombok Island is a popular source of Indonesian labour.

The work permit is 5 + 5 years. However, many respondents indicated that their workers (Indonesians) who went home did not return because oil palm industry in Indonesia is also expanding that provides employment opportunities with insignificant differences in wages compared to Malaysia. The immigration laws that do not allow foreign workers to bring their families also hinder the prospects of them coming back. (On going home, many Indonesian workers choose to find work in their homeland as they prefer to have their wives and children to be with them).

### COST OF EMPLOYING A FOREIGN WORKER

Mechanisation helps to reduce the number of workers in the oil palm plantations. It can increase productivity and less number of workers is required for a certain type of job, in particular the labour intensive job such as harvesting and fruit collecting, and field upkeep works. This means mechanisation can lead to less cost incurred in employing and also in maintaining the workers. An estate usually has to bear cost of employing new worker, renewal of work permits and other costs such as accommodation and fringe benefits. *Table 11* shows the total cost for bringing one foreign worker which amounted to RM 1835 per foreign worker as the initial costs. These include levy, medical agent fee, and others. An additional RM 2700 of levy for the next five years will also be incurred and this gives an estimate of around RM 4000 per person for a period of five years. The other costs that estate has to bear are on accommodation and fringe benefits. Worker quarter per unit is estimated around RM 40 000 that will be shared by three to four workers. A fringe benefit such as medical, paid leave, electricity and water was estimated around

**TABLE 11. ESTIMATED COST OF BRINGING A FOREIGN WORKER**

Immigration procedure	RM
Levy	540
Security bond (Indonesia)	250
Medical*	220
Passport	150
Insurance	75
Calling visa verification	50
Others	50
Agent fee	500
<b>Total</b>	<b>1 835</b>

Note: \*medical check at source country and Malaysia.

RM 5762 per worker/year (Ramesh *et al.*, 2010). This is not including a yearly incentive such as festival bonus and year-end incentive.

Apart from the cost factor, the process of hiring a foreign labour could be a long process especially if documents submitted by employers do not meet requirement by authority agency. The process begins with the application through the job clearing system (JCS) at the local Labour Department to certify the requirement before forwarding the application to the Ministry of Human Resource (MOHR) at the one-stop centre for approval.

A panel comprising MOHR, Immigration Department and the Labour Department will examine the application after which a quota is given. The application is approved when a levy of RM 540 per workers is paid. After obtaining the approval letter and payment was made, employer can apply for VDR or *Visa dengan Rujukan* and working permit. Some of the documents needed to be attached during application are approval letter from MOHR, application letter from employer, VDR form, copy of workers' passport, *etc.*

#### CURRENT DEVELOPMENT IN RECRUITING WORKERS

In respond to urgent need for labour especially in oil palm plantation, government under Labour Department had extended a system

called *Permohonan Pengambilan Pekerja Asing Secara Fast Track* or fast track application for labour to plantation sector. Prior to extending to the plantation sector, the system was first introduced to manufacturing sector to overcome issue on labour shortage. The application under this fast track system took effect from 24 January to 22 April 2011, mainly for smallholder and plantation sectors (oil palm, cocoa, *etc.*) that face acute labour shortage.

#### CONCLUSION

Oil palm industry continues to face labour shortage. As locals showed poor response to work in the industry, foreigners took their place to undertake various labour intensive operations, such as FFB harvesting and field upkeep. Most

of the foreign workers came from Indonesia to work in the three regions, Peninsular Malaysia, Sabah and Sarawak. A small number of other nationalities were recruited for Peninsular Malaysia and Sabah but none in Sarawak as the state laws restricted recruitment to only Indonesian workers. Future efforts should be geared to attract more locals to work for the industry. Thus, a comprehensive national long-term plan needs to be formulated to attract these local workers, such as by giving them a conducive environment to work. It is important to solve this labour issue so that the industry which has been identified under National Key Economic Areas as the Malaysia economic transformation programme can achieve the desired gross national income.

#### ACKNOWLEDGEMENT

The authors would like to thank the Director-General of MPOB for permission to carry out this study. Appreciation is also recorded for the Techno-Economic Head of Unit and Director of Economics and Industry Development Division for their valuable guidance. The authors also like to extend their appreciation to all Techno-Economic staff for their contribution and effort in this project.

#### REFERENCES

- ATTO, E (2010). Allocating local workforce to work in the oil palm industry. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop, 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.
- AYAT, K and FAIZAH, M S (2009). *The Impact of FFB Production in Sabah due to the Absence of Foreign Labour During Festival Season*. Unpublished.
- FAIZAH, M S (2010). Status of the labour force in the oil palm industry. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop. 8-9 February 2010, Le Meriden Hotel, Kota Kinabalu, Sabah.

KAMARUDZAMAN, A and HASHIM, T (1998). Technical and social issues of mechanization in oil palm plantation industry. *Palm Oil Developments* No. 30.

LENG, T (2000). Mechanisation in oil palm plantations: achievement and challenges. Presented at OFIC 2000, 4 September 2000, Kuala Lumpur.

MAHBOB, A (2010). Status of the labour force in the upstream and midstream of the palm oil industry. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop, 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.

MAMAT, S (2010). Foreign labour-issues and challenges. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop, 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.

NAGEEB, A A W (2010). Mechanization and automation in oil palm plantations – issues and challenges. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop, 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.

RAMESH, V; JAAI, H and ZAINUDIN, M Y (2010). Economics of mechanisation – estate experiences. *Proc. of the 4<sup>th</sup> National Seminar on Oil Palm Mechanization 2010*. 22-23 November 2010. Kuala Lumpur.

REDUAN, B (2010). Foreign labour-issues and challenges. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop, 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.

ZULNASRI, A K (2010). Government policy on foreign labour. Palm Industry Labour: Issues, Performance & Sustainability (PILIPS) Workshop. 8-9 February 2010, Le Meridien Hotel, Kota Kinabalu, Sabah.