

## 11. RELATED PARTY TRANSACTIONS AND CONFLICT OF INTEREST

### 11.1 Related Party Transactions and Conflict of Interests

#### 11.1.1 Promotions of any assets acquired/to be acquired within two (2) years preceding the date of this Prospectus

None of the Directors of the Company has any interest, direct or indirect, in the promotion of, or in any assets which have, within the two (2) years preceding the date of this Prospectus, been acquired or proposed to be acquired or disposed of or proposed to be disposed of by or proposed to be leased to, the Company and its subsidiary companies or in any contract or arrangement subsisting at the date of this Prospectus which is significant in relation to the business of the Company and its subsidiary companies taken as a whole, save as disclosed in Sections 16.7 and 16.8 under "Material Contracts" and "Material Agreements" of this Prospectus.

#### 11.1.2 Existing and Proposed/Potential Related Party Transactions

Save as disclosed below, there are no current and/or subsisting related-party transactions or arrangements between the Group and its shareholders and/or directors and/or key management and technical personnel and/or persons connected with any of the aforementioned persons as defined under Section 122A of the Act:-

Substantial Shareholder of Ecofuture	Name of company	Designation	Principal Activities	Equity Held (%)	Nature of interest/relationship
Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj	MESB	Managing Director	Plantation	-	Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj is a substantial shareholder of Ecofuture and Managing Director of MESB.

Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj, is not on the Board of Ecofuture or any of its subsidiary companies and is not involved in the day-to-day operation of Ecofuture or any of its subsidiary companies.

- (i) Agreement dated 1 January 2003 entered into between SWSB and MESB whereby MESB is to sell and deliver to SWSB oil palm fruits produced from Ladang Mados Tiram (where MESB is vested with the proprietary right) to SWSB. The security deposit required to be paid by SWSB is RM100,000-00. The quantity of fruits to be delivered is to be advised by MESB. The duration specified in this agreement is from 1 January 2003 to 31 December 2004. The price of the oil palm fruits is determined in accordance with a formula set out in its 3<sup>rd</sup> Schedule of the Agreement, being the aggregate sum of (the average local net price of palm oil given by MPOB multiply by the OER) and (the average traded price of kernel as given by MPOB multiply by the kernel Extraction Rate), less the expenditure and transport charges.

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**11. RELATED PARTY TRANSACTIONS AND CONFLICT OF INTEREST (Cont'd)**

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- (ii) Agreement dated 1 January 2003 entered into between SWSB and MESB whereby MESB is to sell and deliver to SWSB oil palm fruits produced from Ladang Mados Paloh (where MESB is vested with the proprietary right) to SWSB. The security deposit required to be paid by SWSB is RM200,000-00. The quantity of fruits to be delivered is to be advised by MESB. The duration specified in this agreement is from 1 January 2003 to 31 December 2004. The price of the oil palm fruits is determined in accordance with a formula set out in its 3<sup>rd</sup> Schedule of Agreement, being the aggregate sum of (the average local net price of palm oil given by MPOB multiply by the OER) and (the average traded price of kernel as given by MPOB multiply by the kernel Extraction Rate), less the expenditure and transport charges.
- (iii) Agreement dated 1 January 2003 entered into between SWSB and MESB whereby MESB is to sell and deliver to SWSB oil palm fruits produced from Ladang Mados Sermin (where MESB is vested with the proprietary right) to SWSB. The security deposit required to be paid by SWSB is RM200,000-00. The quantity of fruits to be delivered is to be advised by MESB. The duration specified in this agreement is from 1 January 2003 to 31 December 2004. The price of the oil palm fruits is determined in accordance with a formula set out in its 3<sup>rd</sup> Schedule Agreement, being the aggregate sum of (the average local net price of palm oil given by MPOB multiply by the OER) and (the average traded price of kernel as given by MPOB multiply by the kernel Extraction Rate), less the expenditure and transport charges.
- (iv) A non-contractual mutual arrangement and understanding was entered between SWSB and MESB whereby SWSB will supply ECOMAT to MESB in accordance to the quantity to be determined from time to time based on purchase order to be issued by MESB. A first purchase order dated 21 May 2002 was issued by MESB to SWSB, whereby SWSB had supplied ECOMAT amounting to RM16,800 to MESB.
- (v) Agreement dated 18 December 2003 entered into between SWSB and MESB whereby MESB is to sell and deliver to SWSB oil palm fruits produced from Ladang Mados Lenggong (where MESB is vested with the proprietary right) to SWSB. The security deposit required to be paid by SWSB is RM200,000.00. The quantity of fruits to be delivered is to be advised by MESB. The duration specified in this agreement is from 1 January 2004 to 31 December 2005. The price of the oil palm fruits is determined in accordance with a formula set out in its 3<sup>rd</sup> Schedule, being the aggregate sum of (the average local net price of palm oil given by MPOB multiply by the oil Extraction Rate) and (the average traded price of kernel as given by MPOB multiply by the kernel Extraction Rate), less the expenditure and transport charges.

The above-mentioned transactions are carried out based on arm's length basis and commercial terms. To safeguard the interest of Ecofuture Group and to avoid a possible conflict of interest situation, an audit committee comprising of majority of independent directors will be formed upon the listing of Ecofuture which will, inter-alia, monitor any transactions between Ecofuture Group and the above mentioned company as well as its Substantial Shareholders and/or person connected with them.

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## 11. RELATED PARTY TRANSACTIONS AND CONFLICT OF INTEREST (Cont'd)

### 11.1.3 Interest in Similar Business and Trade

Save as disclosed below, none of the Directors nor substantial shareholders and/or persons connected with such a Director or substantial shareholders as defined under Section 122A of the Companies Act, 1965 of the Company are interested, directly or indirectly in any business and company carrying on a similar trade as the Company and its subsidiary companies.

Substantial Shareholder of Ecofuture	Name of company	Principal Activities	←-----Direct-----→		←-----Indirect-----→	
			No. of shares	%	No. of shares	%
Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj	MESB	Oil Palm Plantation	-	-	-	-

As shown in the table above, Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj who is a substantial shareholders of Ecofuture is also a Managing Director in MESB, a company which is involved in oil palm plantation. Currently, MESB is also supplying FFB to the Ecofuture Group via SWSB. To avoid any potential conflict of interest with Ecofuture, and to secure consistent long-term supply of FFB, SWSB has entered into a purchase agreement as described in Section 11.1.2 with MESB to ensure that the business relationship between the Group and His Royal Highness are conducted on arm's length basis, on commercial terms and non-competing with the Group. In this respect, the sale price of FFB by MESB is based on the prevailing market price quoted by MPOB. In addition, although, Duli Yang Amat Mulia Tunku Ibrahim Ismail Ibni Sultan Iskandar Al-Haj is a substantial shareholder of Ecofuture, His Royal Highness, is not a Director of Ecofuture nor its subsidiary companies and does not involved in the decision making and operations of the Group. Based on the foregoing, the Board of Ecofuture is of the opinion that there does not exist any conflict of interest situation between MESB and the Group.

Jang Kim Luang @ Yeo Kim Luang as the director and substantial shareholders of Ecofuture, owns two (2) parcels of freehold agricultural land, located adjacent to the Group's mill, measuring a total area of approximately 18 acres held under Title No. HSD 3966, Lot No. PTD 487 and Title No. HSD 4009, Lot No. PTD 530, Mukim Sungai Segamat, District of Segamat, Johor Darul Takzim. The two (2) parcels of land are cultivated with young oil-palm tree aged between three (3) to four (4) years. Due to the oil palm smallholdings and young age of the oil palm trees, the yields derived from the oil palm smallholdings are miniscule relative to the Group's FFB purchase from other oil palm estates. Currently, Jang Kim Luang @ Yeo Kim Luang does not receive any revenue from the oil palm smallholdings. Nonetheless, as the oil palm trees matured, future sales of FFB from these oil palm estates to the Ecofuture Group will be conducted on arm's length basis and on commercial terms similar to other FFB purchase from other oil palm estates.

To safeguard the interest of the Group and to avoid a possible conflict of interest situation, an audit committee comprising of a majority of independent directors is formed and will, inter-alia, monitor any transactions between the Group and MESB as well as its substantial shareholders and/or persons connected with them.

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## 11. RELATED PARTY TRANSACTIONS AND CONFLICT OF INTEREST *(Cont'd)*

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### 11.1.4 Transactions that are Unusual in Their Nature and Conditions

There are no transactions that are unusual in their nature or conditions, involving goods, services, tangible or intangible assets, to which the Group was a party preceding one (1) year from the date of this Prospectus and the subsequent financial year thereof.

### 11.1.5 Outstanding Loan and/or Guarantees Made by the Company or Any of Its Subsidiary to or for the Benefit of Related Parties

As at the Latest Practicable Date, there is no outstanding loan (including guarantees of any kind) made by the Company or any of its subsidiary to or for the benefit of the related parties.

### 11.2 Declaration by Advisers

Affin Merchant hereby confirms that there is no conflict of interest in its capacity as the Adviser, Sponsor, Underwriter and Placement Agent for the Public Issue of Ecofuture on the MESDAQ Market.

Affin Securities hereby confirms that there is no conflict of interest in its capacity as a Placement Agent for the Public Issue of Ecofuture on the MESDAQ Market.

Messrs Raslan Loong has given its confirmation that there is no legal conflict of interest in their capacity as the Solicitors for legal due diligence, Public Issue and Flotation Exercise.

Messrs Kevin Lee & Co and Messrs CM Ling & Co have given its confirmation that there is no conflict of interest in their capacity as Auditors for the Company and its subsidiary companies.

Messrs PKF has given its confirmation that there is no conflict of interest in their capacity as Reporting Accountants for the Public Issue.

PKF Management Consulting Sdn Bhd, has given its confirmation that there is no conflict of interest in their capacity as the Experts for the independent valuations of ISSB and ELPSB.

Frost & Sullivan, the Independent Market Researcher for the Public Issue has given its confirmation that there is no conflict of interest in their capacity as the Independent Market Researcher to Ecofuture Group for the Public Issue.

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## 12. OTHER INFORMATION CONCERNING THE ECOFUTURE GROUP

### 12.1 Approvals, Major Licences and Permits Obtained

The other approvals, major licences and permits required for the purpose of conducting the business of the Ecofuture Group are listed below:-

Licensor / Authority	Effective Date	Expiry date	Term / Duration (Years)	Nature of Approval, License and Permit	Equity/Other Condition	Status of compliance
<b>SWSB</b> Energy Commission of Malaysia	15.03.04	14.03.05	1 year	License to use, work or operate an electrical installation pursuant to Section 9 of the Electricity Supply Act 1990 (License No. 1414)	None	Not Applicable
MPOB	01.04.02	31.03.05	3 years	License pursuant to Regulation 13 of the Palm Oil Industry (Licensing) Regulations 1979 (License No. 007011-404000) to purchase and move oil palm fruit, process oil palm fruit and to store palm oil, oil palm kernels or oil palm fatty acid in respect of P.T.D 509, Batu 10, Off Jalan Labis, Mukim Sungei Segamat, Segamat Johor	None	N/A
Department of Environment	29.06.04	30.06.05	1 year	License pursuant to Section 18(1) of the Environmental Quality Act 1974, read with Environmental Quality (Prescribed Premises) (CPO) order 1977 (License No. 001101) to allow SWSB to occupy and operate the premise known as Batu 10, Jalan Labis, Segamat, Johor	None	Not Applicable
<b>ISSB</b> MITI	01.04.00	31.03.05	5 years	Grant of Pioneer Status pursuant to the Promotion of Investments Act 1986 for carrying out the activity of manufacturing mulching mats from agricultural waste.	At least 70% of the shares in the Company must be held by Malaysian At least 50% of the contents of the Company's products must be local	Complied

## 12. OTHER INFORMATION CONCERNING THE ECOFUTURE GROUP (Cont'd)

Licensor / Authority	Effective Date	Expiry date	Term / Duration (Years)	Nature of Approval, License and Permit	Equity/Other Condition	Status of compliance
ETSB MITI	01.04.03	31.03.08	5 years	Grant of Pioneer Status pursuant to the Promotion of Investments Act 1986 carrying out the activity of manufacturing mulching mats from agricultural waste	The "value-added" in the Company's products must be at least 45% The number of staff at management, technical and supervision level shall constitute at least 15% of the total workforce of the Company	Complied
ELPSB MITI	07.10.03	-	* -	Grant of Pioneer Status pursuant to the Promotion of Investments Act 1986 for the manufacturing of "moulded products from agricultural fibres". (letter dated 7-10-03 from MIDA to EPSB)	The "value-added" in the Company's products must be at least 45%. The number of staff at management, technical and supervision level shall constitute at least 15% of the total workforce of the Company. The Company is required to inform MITI in the event of change of manufacturing premises.	Complied
Ministry Of Finance ("MOF")	13.07.04	12.07.05	1 year	Letter from MOF dated 24.08.04 granting an exemption on import duty for the import of HA-321 Cationic Neutral Sizing Agent, a raw material of the product known as Disposable Fast Food Container	None	Not Applicable

## Note:

- \* ELPSB was awarded pioneer status vide MIDA's letter dated 7 October 2003, pending the issuance of the certificate. The application to MIDA for issuance of the Pioneer Status certificate will be made upon ELPSB achieving 25% to 30% of its installed production capacities.



## 12. OTHER INFORMATION CONCERNING THE ECOFUTURE GROUP (Cont'd)

Authority	Building Structure	Description of Certificate of Fitness ("CF")	Status of compliance
Pejabat Daerah Segamat	Original palm oil mill structure at Lot P.T.D 509, Batu 10, Jalan Labis, Segamat, Johor ("Original Structure")	The oil palm mill which was acquired in 1993 was purchased based on "as-is" basis. The CF for this building dated 6 November 2004 has been obtained.	Complied.
Pejabat Daerah Segamat	Extension on the Original Structure	Application for the building plan approval was made on the 14 April 1999, and approval was obtained from the Pejabat Daerah Segamat on 15 November 1999. Pejabat Daerah Segamat has vide its letter dated 10 November 2004 indicated that the CF for this extension has been approved. SWSB is currently waiting for receipt of the said CF.	To be complied.
Pejabat Daerah Segamat	Extension on the Original Structure.	Application for the building plan approval was made on 19 December 2001 and the approval was obtained from the Pejabat Daerah Segamat on 25 July 2003. Zaidun-Leeng is in the process of applying this CF.	To be complied.
Pejabat Daerah Segamat	Extension on the Original Structure.	Zaidun-Leeng is in the process of applying this CF.	To be complied.
Pejabat Daerah Segamat	Additional single-storey ECOMAT factory	Application for the building plan approval was made on 29 May 2002 and the approval was obtained on 31 July 2003 from the Pejabat Daerah Segamat. Pejabat Daerah Segamat has vide its letter dated 10 November 2004 indicated that the CF for this extension has been approved. SWSB is currently waiting for receipt of the said CF.	To be complied.
Pejabat Daerah Segamat	New ECOPAK factory	New single-storey building erected for the production of ECOPAK. The building plan has been submitted on 11 September 2003 for approval which is still pending approval from relevant authorities.	To be complied.

## 12. OTHER INFORMATION CONCERNING THE ECOFUTURE GROUP (Cont'd)

### 12.2 Summary of Landed Properties

The details of the landed properties of the Group are as follows:-

Registered Owner	Postal Address	Title No/Location	Description /Existing use	Tenure	Land area (acres)	Audited NBV as at 30 June 2004 (RM)
SWSB	Bearing postal address: Off 10 <sup>th</sup> Mile, Labis Road, P.O. Box 57, 85007 Segamat, Johor	H.S.(D) 20244, P.T.D 509, District of Segamat, Johor Darul Takzim	Approximately 30.415 acres of oil palm smallholdings aged between 5 to 7 years, with an annual yield of approximately 5.73 MT per acre. The palm oil mill <sup>(1)</sup> with a built up area of 22,602.259 sq. m., built in 1980 occupies the remaining 5.585 acres.	Freehold	36	628,534
SWSB	-	H.S.(D) 3986,P.T.D507 <sup>2</sup> H.S.(D) 3987,P.T.D508 <sup>2</sup> H.S.(D) 3989,P.T.D510 <sup>2</sup> H.S.(D) 4001,P.T.D522 H.S.(D) 4002,P.T.D523 H.S.(D) 4003, P.T.D524 H.S.(D) 4004, P.T.D525 <sup>3</sup>	Oil palms smallholdings aged between 5 to 7 years old with an annual yield of 5.73 MT per acre.  Approximately 23.24 acres of oil palm smallholdings aged between 5 to 7 years with an annual yield of approximately 5.73 MT per acre. The new ECOPAK factory with a built up area of 3.081 sq. m. built in 2004 occupies the remaining 0.76 acres.	Freehold  Freehold	6 6 6 16 21.8 24 24	89,543 89,543 76,866 251,541 340,992 375,404 377,670
		H.S.(D) 4006, P.T.D527 <sup>2</sup> H.S.(D) 4007,P.T.D528 <sup>2</sup> H.S.(D) 4008,P.T.D529 <sup>2</sup> Mukim of Sungai Segamat District of Segamat, Johor Darul Takzim	Oil palms smallholdings aged between 5 to 7 years old with an annual yield of 5.73 MT per acre.	Freehold	6 6 6	107,305 86,967 81,923



**12. OTHER INFORMATION CONCERNING THE ECOFUTURE GROUP (Cont'd)**

Registered Owner	Postal Address	Title No/Location	Description /Existing use	Tenure	Land area (acres)	Audited NBV as at 30 June 2004 (RM)
SWSB	-	H.S.(D) 3990,P.T.D511 <sup>2</sup> Mukim of Sungai Segamat District of Segamat, Johor Darul Takzim	Oil palms smallholdings aged between 5 to 7 years old with an annual yield of 5.73 MT per acre.	Freehold	6	112,478
<b>Total</b>					<b>163.8</b>	<b>2,618,766</b>

*Notes:-*

- The oil palm mill acquired in 1993 was purchased based on an "as-is" basis. As such, certain buildings and structures located on the parcel of land bearing title no. H.S.(D) 20244, P.T.D,509, District of Segamat, Johor, which is currently being utilised for palm oil milling and other light industry purposes do not have CF. However the Group is currently applying for the necessary approval from Pejabat Daerah Segamat in respect of the building plans and occupation certificate. The Group has given an undertaking to the SC to ensure that it will obtain the necessary outstanding approval to obtain the CF within one (1) year from the date of listing. The status of the CF applications are tabulated in Section 12.1 above*
- These land titles have a condition that the land must be planted with rubber trees. However, on 19 October 2004, Pejabat Tanah Daerah Segamat has approved SWSB application to convert all the land to planting of oil palm.*
- The construction of the new ECOPAK factory is undertaken on this piece of land.*
- All properties have been charged to a financial institution for the credit facilities taken up by Ecofuture Group.*
- There is no valuation undertaken on Ecofuture Group's properties in respect of the Flotation Exercise. The values of the properties are based on the NBV as at 30 June 2004 which did not incorporate any revaluation surplus in the accounts.*

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13. DIRECTORS' REPORT

**ECOFUTURE BHD. (628026-M)**

Suite 11-03, 11<sup>th</sup> Floor, Block A, Damansara Intan, No 1, Jalan SS 20/27,  
47400 Petaling Jaya, Selangor Darul Ehsan, Malaysia.  
Tel: 603 – 7118 8668 Fax: 603 – 7118 2943

**Registered Office**

Room 209, 2<sup>nd</sup> Floor,  
Kwang Tung Association Building  
44, Jalan Pudu  
55100 Kuala Lumpur  
Malaysia

Date: 8 December 2004

The Shareholders

**Ecofuture Bhd.**

Dear Sir/Madam,

On behalf of the Board of Directors of Ecofuture Bhd. ("Ecofuture" or the "Company"), I report that after making due enquires in relation to the interval between 30 June 2004, being the date which the last audited accounts of the Company and its subsidiary companies have been made up, and 8 December 2004 being a date not earlier than fourteen (14) days before the issue of this Prospectus.

- (i) the business of the Company and its subsidiary companies has, in the opinion of the Directors, been satisfactorily maintained;
- (ii) in the opinion of the Directors, no circumstances have arisen since the last audited accounts of the Company and its subsidiary companies which have adversely affected the business and trading or the value of the assets of the Company and its subsidiary companies;
- (iii) the current assets of the Company and its subsidiary companies appear in the books at values which are believed to be realizable in the ordinary course of business;
- (iv) no contingent liabilities have arisen by reason of any guarantees or indemnities given by the Company or its subsidiary companies;
- (v) since the last audited financial statements of the Company and its subsidiary companies, there has been no default or any known event that could give rise to a default situation, in respect of payments of either interest and/or principal sums in relation to any borrowings in which the Directors of the Company are aware of ; and
- (vi) save as disclosed in the Proforma Balance Sheet as set out in Section 7.9 and Accountant's Report as set out in Section 8 of this Prospectus, there have been no material changes to the published reserves or any unusual factors affecting the profits of the Company and its subsidiary companies since the last audited accounts of the Company and its subsidiary companies.

Yours faithfully,

For and on behalf of the Board of Directors of

Ecofuture Bhd.

(Company No: - 628026-M)



Jang Kim Luang @ Yeo Kim Luang  
Executive Chairman/Managing Director

14. SUMMARY OF VALUATION REPORT ON ELPSB AND ISSB



**PKF Management Consulting Sdn. Bhd.** (Company No. 291223-V)

9<sup>th</sup> Floor, MCB Plaza, No. 6, Changkat Raja Chulan, 50200 Kuala Lumpur.  
Tel: 03-20323828 Fax: 03-20321868  
E-mail: pkfkl@pkfmalaysia.com Website: www.pkfmalaysia.com

2 December 2004

The Board of Directors  
Ecofuture Berhad  
Suite 11-03, 11<sup>th</sup> Floor,  
Block A, Damansara Intan,  
No.1, Jalan SS20/27,  
47400 Petaling Jaya,  
Selangor Darul Ehsan.

Dear Sirs,

**SUMMARY VALUATION REPORT IN RELATION TO THE ACQUISITION OF 100% EQUITY INTEREST IN ECOLOGICO PACKAGING SDN BHD (“EPSB”) AND INTERACTIVE STAR SDN BHD (“ISSB”) BY ECOFUTURE BERHAD (“ECOFUTURE”).**

**1. Introduction**

This letter is prepared for the purpose of inclusion in the Prospectus of Ecofuture to be dated 13 December 2004 in connection with a Public Issue of 43,635,000 new ordinary shares of RM0.10 each at an issue price of RM0.25 per ordinary share in Ecofuture and the listing and quotation of the entire issued and paid-up share capital of Ecofuture on the MESDAQ Market of Bursa Malaysia Securities Berhad (“Bursa Securities”).

This letter has been prepared as a summary of our valuation report dated 12<sup>th</sup> January 2004 (“Valuation Date”). This letter is not intended as, and does not constitute, a recommendation by us to any potential investor of Ecofuture as to whether such potential investor should subscribe for shares in Ecofuture. This letter is also not intended to be relied on to address all business concerns and risk pertaining to EPSB, ISSB, or Ecofuture.

In arriving at our opinion, we have relied on and assumed that all information provided to us up to 12<sup>th</sup> January 2004 is true, accurate, not misleading and complete in all respects as at the date thereof and that all information which is or may be relevant to our valuation has been provided to us. While we have considered all information provided to us, we have not carried work that constitutes an audit in accordance with approved auditing standards in Malaysia. We also do not express any opinion on the achievability of the financial forecasts and projections.

14. SUMMARY OF VALUATION REPORT ON ELPSB AND ISSB (Cont'd)



**PKF Management Consulting Sdn. Bhd.** (Company No. 291223-V)

*SUMMARY VALUATION REPORT IN RELATION TO THE ACQUISITION OF 100% EQUITY INTEREST IN ECOLOGICO PACKAGING SDN BHD ("EPSB") AND INTERACTIVE STAR SDN BHD ("ISSB") BY ECOFUTURE BERHAD ("ECOFUTURE") DATED 2<sup>nd</sup> DECEMBER 2004*

**2. Background information of EPSB and ISSB**

EPSB is a private limited company incorporated in Malaysia on 30 May 2003 under the Companies Act, 1965. The principal activity of EPSB is that of the manufacture of packaging products utilizing oil palm biomass. These products are marketed under the brand of ECOPAK, of which is trademarked by EPSB. The present authorised share capital is RM5,000,000 comprising 5,000,000 ordinary shares of RM1.00 each whilst its issued and paid up share capital is RM2,000,002 comprising 2,000,002 ordinary shares of RM1.00 each.

ISSB is private limited company which was incorporated on 13 March 1999 under the Companies Act, 1965, in Malaysia. ISSB commenced its operations in May 2000 and its principal business activities are investment holding, licensing of technologies, and sale of fibrous mats. These products are marketed under the brand of ECOMAT, of which is trademarked under ISSB. The present authorised share capital is RM100,000 comprising 100,000 ordinary shares of RM1.00 each whilst its issued and paid up share capital is RM100,000 comprising 100,000 ordinary shares of RM1.00 each.

**3. Definition of Fair Market Value**

The standard of value that we have adopted in the indicative valuation is the fair market value ("FMV"). FMV is defined as the price of an asset that would change hands between a willing buyer and a willing seller when neither is acting under compulsion and when both have the relevant and required facts. We note that the concept of FMV means the cash equivalent price of an asset being valued assuming the transaction took place under conditions existing at the date of valuation of the asset. The amount would not be considered a FMV if it was influenced by special motivations not characteristic of a typical buyer or seller.

The Indicative Value Range represents the range that a well-informed general investor may pay. However, it must be emphasised that the Indicative Value Range estimated by us involves a high degree of subjectivity and element of judgement. The final price of the equity will reflect the specific circumstances of the buyer and seller, their perceptions of business and market factors at the point of execution.

The Indicative Value Range that we have estimated is based on the going concern use and not, for example, with the break-up value of the business or the value which a third party may place on the business in a takeover situation.

**4. Valuation Methodology**

In arriving at the indicative FMV of EPSB and ISSB, we have considered the following methods of valuation:-

14. SUMMARY OF VALUATION REPORT ON ELPSB AND ISSB (Cont'd)



**PKF Management Consulting Sdn. Bhd.** (Company No. 291223-V)

*SUMMARY VALUATION REPORT IN RELATION TO THE ACQUISITION OF 100% EQUITY INTEREST IN ECOLOGICO PACKAGING SDN BHD ("EPSB") AND INTERACTIVE STAR SDN BHD ("ISSB") BY ECOFUTURE BERHAD ("ECOFUTURE") DATED 2<sup>nd</sup> DECEMBER 2004*

1. **Relative Valuation Method**
  - i. Net Tangible Asset Method
  - ii. Price to Book Ratio Method
  - iii. Earnings Capitalisation Method

2. **Discounted Cash Flow ("DCF") Method**

Methodologies under the Relative Valuation Method were not adopted as:

- (a) EPSB and ISSB are both not listed and therefore the value of their shares cannot be ascribed to a readily available market price.
- (b) The book values of EPSB and ISSB are not reflective of its market value in view of the nature of its innovations, the markets they operate in and the inherent goodwill developed from the operations and business affairs of the Group.
- (c) There is inadequate evidence of historical track record and supporting evidence to determine sustainable growth and indication of maintainable profits.

Hence, we have adopted the DCF Method of valuation, and have determined the equity discount rates of 18.8% to 21.9% per annum for EPSB, and 17.5% to 22.7% per annum for ISSB to be appropriate after having further taking into consideration the following:-

- (a) The DCF Method takes into account the time value of money, inherent risk and the required rate of return for the shareholders based upon their perception of the risk involved;
- (b) The weighted unlevered beta ( $\beta$ ) of companies within the oleo industry and technology driven companies on the MESDAQ market of Bursa Securities;
- (c) The average indicative yield to maturity on a ten-year Malaysian Government Security;
- (d) The expected market return on equity and the risk associated with EPSB and ISSB's limited track record; and
- (e) The 'Greenfield' nature of Ecofuture's business, ECOPAK's potential patent life of 10 to 20 years, and the potential for growth of environmental friendly solutions and technologies.

It must, however, be noted that the Indicative Value Range estimated using the DCF Method of valuation is dependent on the sustainability of EPSB's and ISSB's future cash flows.

14. SUMMARY OF VALUATION REPORT ON ELPSB AND ISSB (Cont'd)



**PKF Management Consulting Sdn. Bhd.** (Company No. 291223-V)

*SUMMARY VALUATION REPORT IN RELATION TO THE ACQUISITION OF 100% EQUITY INTEREST IN ECOLOGICO PACKAGING SDN BHD ("EPSB") AND INTERACTIVE STAR SDN BHD ("ISSB") BY ECOFUTURE BERHAD ("ECOFUTURE") DATED 2<sup>nd</sup> DECEMBER 2004*

**5. Conclusion**

On the basis of the foregoing, we are of the opinion that the Indicative Value Ranges of EPSB and ISSB as at the Valuation Date are as follows:

Company	Indicative Value Range
<b>EPSB</b>	<b>RM6.6million to RM8.3million</b>
<b>ISSB</b>	<b>RM1.3million to RM2.2million</b>

Yours faithfully,  
**PKF Management Consulting Sdn Bhd**

Ang Teck Pheng CA(M), CPA(Aus), C.F.P.  
Director



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**15. SUMMARY OF INDEPENDENT MARKET RESEARCH REPORT**

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**F R O S T  S U L L I V A N**

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Date: 2 December 2004

**The Board of Directors  
Ecofuture Bhd.  
Room 209, 2<sup>nd</sup> Floor  
Kwang Tung Association Building  
44, Jalan Pudu  
55100 Kuala Lumpur  
Malaysia**

Dear Sirs:

**Executive Summary of the Independent Market Research Report on the Strategic Analysis of the  
Malaysian Market Potential for ECOMAT and ECOPAK in Malaysia**

The purposes of the Summary Independent Market Report ("Summary IMR") of Ecofuture Bhd. is prepared by Frost & Sullivan (M) Sdn Bhd for inclusion in the Prospectus of Ecofuture Bhd in relation to the proposed listing of and quotation for the entire issued and paid-up share capital of Ecofuture Bhd. on the MESDAQ Market of the Bursa Malaysia Securities Berhad.

**Overview of Malaysian Economy**

The Malaysian economy has entered 2004 on a stronger overall growth performance and GDP is expected to expand by 7%. According to Bank Negara, the 2<sup>nd</sup> quarter in 2004 was particularly strong, rising by 8.0% – the highest quarterly growth since the 3<sup>rd</sup> quarter of 2000. The growth was attributed to the expansion in private sector demand and buoyant external demand. Malaysia's GDP is expected to grow at a slower pace of 6% in 2005 due to inflationary pressure, interest rate hikes, uncertainties over oil prices and a probable slowdown in the economy of China. The services sector will remain the largest contributor to GDP at 57%, mainly supported by higher consumer spending, growth in tourism, communications and finance activities. Meanwhile, the manufacturing sector will continue to spearhead growth albeit at a slower pace as demand for electronic products tapers in the global semiconductor cycle.

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**Overview of the Malaysian Agriculture Sector**

The agriculture sector is projected to grow by 2.8 percent for the year as compared to the 5.7 percent growth registered in 2003. This was due to a slower growth in the output of crude palm oil (CPO) after a strong increase in the previous year. However, it was noted that the overall agriculture sector registered a growth of 3.2 percent in the first six months of the year on the back of an increase in the output of rubber and food commodities, especially fish, livestock and fruits. This increase can be attributed to the success of the government's policy to reduce food imports and increase food production. Malaysia is going back to its roots, with the government's commitment to revitalise the agriculture as the third engine of growth after manufacturing and services. This is in line with its policy to reduce food imports and increase food production.

**Overview of the Malaysian Oil Palm Biomass Recycling Industry**

Malaysia is the world's largest producers and exporters of palm oil and, it accounts for more than 50 percent of the world's palm oil output and more than 60% of world palm oil exports. Malaysia's palm oil-based products are used in a myriad of food-based and industrial applications, and have penetrated more than 80 countries worldwide. For 2003, Malaysia's exports of palm oil (both crude and processed) were valued at RM23.32 (US\$6.14) billion. The bulk of exports were consumed in major markets such as China, India, Netherlands, Pakistan and Egypt. Oil palm covers approximately 3.8 million hectares of cultivated land and is one of the major commodities in the agriculture industry in Malaysia. In 2003, the Malaysian oil palm industry produced approximately 13.35 million tonnes of crude palm oil, registering a growth rate of 12.1 percent, from 11.91 million tonnes in 2002. The increase was mainly attributed to the expansion in matured planted area, favourable weather conditions and rainfall distribution as well as constant sunshine throughout the year.

However, the Malaysian palm oil production is projected to slow down to 0.7 percent or 13.5 million tonnes, due to the downturn in the biological yield cycle of oil palm trees, after registering double-digit growth in production in the previous year. It is expected that the palm oil production would probably taper off in 2004 due to cyclical factors, as there is usually a 3 year cyclical production output decline.

In Malaysia, the oil palm industry generates around 30 million tons of renewable biomass annually. The process of extracting oil from the oil palm bunches generates crude palm oil (CPO) as well as Palm Oil Mill Effluent (POME), large quantities of empty fruit bunches (EFBs) - palm fruit without the fruitlets, mesocarp fibre and shell, which becomes a source of environmental pollution. The traditional methods of disposing oil palm biomass in the mills were through indiscriminate dumping into rivers or incineration. However, under the Environmental Quality Act 1974, Malaysia has adopted a "zero burning" policy and through enforcement by Governmental Authorities to curb environmental pollution, most of the oil palm biomass is now being recycled as mulch or left to rot as natural fertilizer. With increased EFB generation as a consequence of the increasing number and

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capacities of oil palm mills, more stringent methods and legislation are now in place to dictate the disposal of the POME and other forms of biomass.

Approximately 90% of the CPO is used in food applications – production of cooking oil and margarine. The remaining 10% is processed into non-food applications – mainly oleochemicals – and are used in applications such as soap and efforts are also underway to use it as a biodiesel (diesel substitute). Palm oil and derived food products are already widely used in food and non-food applications. The CPO also shows promise of being a strategic, renewable and green product in the fuel and oleochemical/petroleum sectors.

Palm oil, the current major revenue generator for the industry, represents only a usage of 10% of the oil palm component. The balance 90% of the oil palm has yet to be commercially exploited. Fibrous biomass in the form of trunks, fronds and EFBs are derived from the oil palm trees during the extraction process. On average, an oil palm plantation produces about 55 tonnes per hectare per year of dry matter as compared to 5.5 tonnes of CPO and PKO. The maximisation of this could significantly increase revenue-generating capacity of up to RM30 billion annually, as well as create industries and additional employment opportunities.

The oil palm industry in Malaysia is looking ahead to becoming more eco-friendly whereby attempts are made and efforts are in place to recycle as much renewable biomass as possible. There has been some measure of success such as recycling some of these waste matters into substrates for mushroom cultivation and even as material for the production of particleboards. In addition, it can also be applied as organic fertilizer or mulching material. Palm fibers are mainly used as fuel for boilers. Other applications of palm fibres include the use of the fibre as animal feed.

**Overview of Ecofuture Bhd.'s Products**

Ecofuture Bhd.'s innovations of ECOMAT and ECOPAK are eco-friendly solutions in their respective fields of application. The only main raw material required by these products is the EFB, which is available in abundance in Malaysia. Whilst plantation owners have long been aware of the benefits of EFB mulching, the logistics and high cost of evacuation had in the past been a major constraint to the commercial exploitation of the material. Hence, with the development of ECOMAT, the bulk handling and logistic problems related to EFBs are reduced as the product is streamlined in design and its production can be carried on at site. On the other hand, ECOPAK will serve its purpose in the biodegradable food packaging market as conventional disposable food packaging such as plastics and Styrofoam pose a hazard to the environment as well as to human health.

The table below outlines the summary of the Ecofuture Bhd's products and its benefits. A summary of Ecofuture Bhd.'s products and its features are outlined below:

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<b>Products</b>		<b>Product Features</b>
ECOFIBRE	Refined fibre	<p><i>Production</i></p> <p>It is produced through organic means without any chemical usage.</p> <p><i>General Appearance</i></p> <p>It is relatively long in length, low in oil content and contains no residual stench.</p> <p><i>General Application</i></p> <p>It is suitable as raw material for the production of various products such as pulp and paper, fuel, compost, mattresses and cushions. It forms the basic raw material used for the production of the Group's ECOMAT, ECOPAK, and other potential products.</p>
ECOMAT	Mulching mat	<p><i>Production</i></p> <p>Made entirely out of natural oil palm fibers.</p> <p><i>General Appearance</i></p> <p>It is woven into a flat rectangle shape, is easy to handle as it is light in weight.</p> <p><i>General Application</i></p> <p>It enhances the quality of the soil both chemically and physically. As mulch, it allows free flow of water through the ground while acting as a protective layer. It can also be used as prevention against soil erosion. It is suitable for all sorts of vegetation and not restricted to oil palm application.</p>
ECOPAK	Disposable food packaging	<p><i>Production</i></p> <p>Made entirely out of natural oil palm fibers.</p> <p><i>General Appearance</i></p> <p>The product is light weight, microwaveable and can be conveniently disposed as it is biodegradable.</p> <p><i>General Application</i></p> <p>Containers used in various forms and manner for food and beverages.</p>

*Source: Frost & Sullivan, 2004*

### **Overview of the Malaysian Market for ECOMAT**

It is expected that strong environmental enforcement during the forecast period would drive the growth of ECOMAT as existing palm oil mills and plantations look to a more environmental friendly as well as a cost effective and efficient option in EFB disposal, as compared to the traditional practices of cluster mulching or incineration. This is expected to be driven by the growing awareness of the benefits of ECOMAT in plantations as well as its other replacement markets, especially as the mats are bio-degradable. In addition, with economies of scale, the price of ECOMAT is also expected to gradually reduce thus, making it more cost competitive.

This is driven by its advanced shredding technology that Ecofuture Bhd is introducing as well as a small number of early adopters of the shredding technology in the market.

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The Group is also planning to export ECOMAT to countries where land and soil problems are prevalent, such as China and the Middle East. The Group is currently undertaking a trial desert control and sand storm erosion and soil improvement for afforestation. Successful experiments such as the ongoing project in China are expected to lend credibility to ECOMATs usage in prevention of soil erosion especially in desert / desert-like conditions.

As the technology is newly developed, there are no existing direct competitors for ECOMAT per se on a product basis. However, as it continues to be developed, marketed and when it witnesses commercial success, it is expected that others may introduce products within the same category which could lead to price competition. Some indirect competitors commercially exploiting oil palm biomass in Malaysia are Asia Green Environmental Sdn. Bhd., the Firmaplus Group (set up by the Delta Group of Companies, an investment outfit based in Abu Dhabi), and Thermo Tech Technologies Inc., a Canadian-based organic waste-recycling company.

**Key Market Drivers for ECOMAT:**

- Environmental legislation and enforcement

With a move towards stricter enforcement of environmental legislation and enforcement, a greater number of palm oil mills are expected to adhere to the provisions. This is expected to be one of the most important drivers for the adoption of this technology.

- Benefits of ECOMAT with other existing options

In the current scenario, the plantation owners dispose off the EFBs through incineration and/or dumping the same near the young palm trees. The alternative options are fairly straightforward and as such predominantly used among the target-consuming segment for ECOMAT. However, the benefits of ECOMAT – biodegradable, light weight and easy to distribute, able to improve the soil climate, etc - and its competitive cost can drive this market in Malaysia as well as other countries.

- Increasing acreage of palm oil plantation

In 2002, the oil palm planted area increased to 3,670,243 hectares up from 3,499,012 hectares in 2001. The 4.7 percent increase is a direct consequence of the government's policy of crop diversification. In Malaysia, the major crops that are planted are oil palm, rubber, rice, mixed horticulture, coconut and orchard. These crops depend largely on chemical fertilizers to keep away all sorts of bugs and insects that may deter the growth of the crops thus, increasing the yield. With the use of ECOMAT, the fertilizers are not "washed away" and therefore can be put to more effective and optimal use.

- Applications of ECOMAT in other uses like prevention of soil erosion

In addition to its major use as a mulching mat for plantations, these mats can be also effectively used to prevent soil erosion and dust prevention. This is a major application in export markets like China where experiments to demonstrate these benefits have been successful. The Group is currently undertaking a trial desert control project in Ten Cin in Western Beijing, China to assess the effectiveness of ECOMAT

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to control sand storm erosion and soil improvement for afforestation. Successful experiments such as the ongoing project in China are expected to lend credibility to ECOMATs usage in prevention of soil erosion especially in desert / desert-like conditions. We expect such applications to be the key drivers for this technology during the forecast period.

**Key Market Restraints for ECOMAT:**

- Emergence of potential competition with greater adoption levels

We expect that in the a few years time, with various advancements in technology and the success of this innovative product, competition in the form of new entrants is very possible.

- Price reduction in Palm Oil

The reduction in the oil palm price may lead to the reduction in demand for ECOMAT as companies may view the purchase of ECOMATs as an additional cost and could revert to the older traditional ways of mulching using EFBs. This could translate into lower revenues due to strong price competition between the various suppliers.

The EFBs, which are used as raw material for this technology and these products, are available in abundance and the efficiencies in conversion process are the key for long term success. Whilst the plantation owners have long been aware of the benefits of EFB mulching, the logistics and high cost of evacuation had in the past been a major constraint to the commercial exploitation of the material. Therefore, with the development of ECOMAT, the bulk handling and logistics problems related to EFBs can be reduced.

We expect an initial gradual adoption of this technology as the oil millers and estate owners would take a slow approach in adopting this new technology. However, in a few years time the demand of ECOMAT is expected to increase due to both informal and formal communication. With its strong IP protection we estimate that the company will have created adequate entry barriers for competition in the short term. However in the long term we expect direct competition in some form to emerge leading to price sensitivities. However this should provide the Group with an adequate time frame to prepare for this anticipated competition and take appropriate steps to ensure growth.

**Outlook of the Eco-Friendly Packaging Industry**

The growing public desire to preserve natural resources and minimise waste has contributed positively in the growth of the biodegradable food and beverage packaging materials in the recent years. Biodegradable packaging, minimises the use of natural resources and use less energy at all stages of the life cycle of the packaged product. As a reflection of this trend, countries such as China, Japan, North America and Western Europe are phasing out non-biodegradable materials specifically styrofoam.

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Depicted below is the consumption of disposable food and beverage packaging material, legislation and government policies in the respective countries. These developments are anticipated to provide the impetus for the growing demand of eco-friendly packaging materials.

- The annual consumption of disposable food and beverage packaging is about 10 billion pieces and around 80 percent are Styrofoam.

**China +**

- On 1 January 2000, to curb the increasing amount of domestic waste as well as a method to reduce environmental pollution in the country, the Chinese Government imposed a ban on the production, selling and using non-degradable disposable food packaging material.

**Taiwan +**

- Approximately 17.7 million persons eat out everyday, or around 6 million persons for each meal, producing about 59,000 tonnes of disposable food and beverage packaging annually. This includes 43,000 tonnes of non-biodegradable plastic and styrofoam packaging material.
- Only 15% of the 20% of disposable food and beverages packaging are effectively recycled. To reduce such domestic waste, the Environment Protection Administration (EPA) of Taiwan, is currently pushing for restricted use of non recycled packaging materials throughout Taiwan.

**Singapore +**

- With a 100% urbanisation rate, Singaporean frequent "eating out" venues such as hawker centres, coffee shops, fast food outlets as well as the high-end restaurants. This leads to the consumption of a significant amount of disposable food and beverage packaging. In 2002, approximately 2.63 million tonnes of waste was disposed off. Out of these waste, 57.4 percent were from residential premises, food centres and markets whilst the remainder from commercial and industrial premises.
- About 92% of the refuse were incinerated, while the remaining were landfilled. In an effort to accommodate land constraints and mitigate the rising cost of disposal, waste minimisation was actively promoted across all sectors of the community in 2001.

**Japan +**

- During the 20th century, consumer packaging in Japan went through a phase of mass production, mass consumption and mass disposal, which supported the high growth rate of the Japanese economy. However, currently, consumer packaging in Japan is going through a new phase, which includes appropriate production, appropriate consumption and minimum disposal. Annually, there are about 450 million tonnes of waste generated in Japan.
  - There is a growing shortage of landfill sites as the amount of waste generated
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increased. Estimates show that landfill sites in Japan will last only another 12.3 years (from fiscal year 1999) with current domestic waste generation patterns. Recycling initiative and using eco-friendly products will augur well in Japan efforts to further reduce waste generation.

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- Hong Kong'**
- Like many other developed countries, Hong Kong has seen its wasteloads grow as its economy has grown. In 2001, the population was 6.7 million and it has an average annual population growth rate of 0.3 percent till 2015. The per capita level of domestic waste has risen from 0.95 kilograms per person per day in 1990, to 1.11 kilograms in 2002.
  
  - With the rapid pace of economic development and population expansion over the past decades, solid waste generation has become a serious problem in Hong Kong. This problem is aggravated by the fact the plastic contents of the solid waste generated is extremely high compared with many other developed countries. This is due to the high usage of plastic packaging and disposable food containers in Hong Kong. It is well known that these plastics do not biodegrade, and thus disposal of these plastics waste will create immense environmental problems in the future
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**Overview of the Malaysian Food and Beverage Market for ECOPAK**

Although the end-user market for disposable packaging consists of various industries like medical products, household, consumer goods, and etc, the food and beverage industry was identified as the major driver for the packaging industry. The overall food packaging industry is a growth industry especially driven by the increasing urbanisation in Asian countries, including Malaysia.

It is estimated that Malaysians living in urban areas produce about 1.5 kilograms of solid waste per person per day which includes material such as Styrofoam, paper, and plastic food and beverage packaging. It is forecasted that the average disposable food and beverage packaging consumption annually would be around 995 million pieces for 2004 in Malaysia.

The trends in the food and beverage packaging industry are largely dependent on consumer preferences. Plastics are durable, light weight and flexible, which makes them an excellent choice as food containers for packing food and beverages. Presently, lighter and more compact packaging is in demand. The use of Styrofoam in Malaysia is also significant as it is cheap, durable and convenient. The ECOPAK range of products is largely expected to target the disposable cups, plates, and food-box segments, which are currently dominated by Styrofoam based products. However, in Malaysia, end user cost would be the most critical element of success in driving this substitution in the absence of any government ruling as has been the case in China and Taiwan.

With reference to the overall industry, the key competitors for ECOPAK would be the existing producers of plastics and Styrofoam based cups, plates, etc. Although this industry is very fragmented locally, it is also quite competitive. Some such local competitors would include Kenweld (M) Sdn. Bhd, Magnificent Diagraph Sdn.

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Bhd., Katrin BJ Sdn. Bhd., Mega MDP Marketing Sdn. Bhd., Diethelm Malaysia Sdn. Bhd., Able Enterprise Sdn. Bhd. and Yong Kam Fook Plastic Industries Sdn. Bhd, etc. All however are currently utilizing paper, plastic and Styrofoam materials.

Key Market Drivers for ECOPAK:

- Growing environmental concerns and its vocalization

The growing public desire to preserve natural resources and minimize waste has contributed positively to growth in biodegradable food and beverage packaging in the recent years. Biodegradable packaging helps to minimize the use of natural resources and use less energy at all stages of the life cycle of the packaged product. The demand for lighter packaging will continue to drive growth in use of biodegradable packaging. As a reflection of this trend, countries such as China, Japan, North America and Western Europe are phasing out non-biodegradable materials specifically Styrofoam. They have legislations in place to mandate the use of degradable plastics. Such factors are expected to gain momentum and drive the markets for eco-friendly options like ECOPAK.

- Changing lifestyles and demographic trends

An ageing population and growth in the number of single person households are steadily increasing the amount of packaging of all kinds. This is because there is proportionately more packaging material needed to manufacture smaller packs than large family-size packs. Also changing lifestyles, such as the increase in the number of working women, has contributed to a higher demand for convenience foods and ready-made meals.

People are becoming more adaptive to fast food products as well as ready to go food and beverages. Microwaveable products are also becoming more popular. The attitudes and the values of people are getting more advanced and there is a thrust on health oriented and eco-friendly products to cater to the new consumer lifestyle choices.

- Growth in ownership of microwave ovens and deep freezers

The last twenty years has seen a massive increase in the number of households that own a microwave oven and deep-freezer. This has revolutionized the way people regard packaging and has had major implications for the way products are packaged. Ready-made convenience foods move straight from the freezer to the microwave and then to the dinner table in the same container. Thus, the packaging materials must be able to withstand wide extremes in temperature and also ensure that the food quality is not compromised.

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Key Market Restraint for ECOPAK:

- Competition from other packaging materials

While plastics have eroded the market share of paper, glass and metal in packaging over recent years, traditional materials still retain a strong hold in certain packaging markets. Glass for example, remains the favoured materials for wines and sprits while beer is still predominantly sold in cans. However, for ECOPAK the key competitors include Styrofoam and plastic. Their widespread use, easy availability and attractive pricing could potentially restrain the growth of the ECOPAK range of products unless these issues are addressed from a manufacturing and logistics standpoint.

- “Downgauging” of the existing materials used

Most packaging manufacturers have made many improvements to the properties of their products and have made them suitable for a wide range of applications. There is a continuing trend to downgauge by making thinner and lighter food and beverage packages. New processing techniques involving the Group’s current production process may be required as to keep up with this trend. However, the trend of downgauging will probably not be quite as marked in the future as there are practical limits on how thin packaging materials can be.

In addition to Malaysia, ECOPAK has opportunities in other Asian countries which offer scope for biodegradable food packaging. This is a growth industry driven by the increasing urbanization in Asian countries. The conventional disposable food packaging like plastics and Styrofoam pose a hazard to the environment as well as the health of people. Moreover, conventional plastics are resistant to microbial degradation. Plastics also cannot be disposed of through burning since plastics fumes cause a wide range of cancer and also extremely high dioxins, heavy metals and gases, which causes acid rain. Even recycling, widely endorsed to reduce solid wastes, does not effectively reduce the volume of used plastics. Hence, in the near future a greater emphasis on the consumption of biodegradable disposable food packaging would emerge leading to positive growth opportunities for products like ECOPAK, provided the cost competitiveness of these options is maintained vis-à-vis the existing products.



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In respect to the food and beverage industry only, the market potential of disposable packaging material for selected Asian countries based on assumptions made regarding urbanisation, urban population as well as the (urban) per capita consumption of packaging pieces as estimated by Frost & Sullivan is as follow:-

Estimated Market for food packaging at end user level in selected Asian countries for year 2004.

Country	Population 2004 (millions)	Urban Population 2004 (millions)	Average Consumption Per (Urban) Person Annually (pieces)	Total Average Consumption Per (Urban) Person Annually (millions)
China	1,295	488	85	46,345
Taiwan	22.6	17	80	1,393
Hong Kong	6.8	6.8	90	608
Japan	126	99	65	6,444
Singapore	4.2	4	90	394
Malaysia	25.5	15.3	65	995

*Note: All figures are rounded. Source: Frost & Sullivan, 2004*

With the expectation of more stringent government rules related to food packaging, biodegradable food packaging industry could grow at a faster pace during the forecast period. This growth can be faster once the key issues related to quality, cost as well as consistency are resolved. In addition, other key business factors applicable to the food packaging business such as logistics and distribution, sales promotion, reach, etc. are also extremely important and need to be considered.

#### **Industry Players and Competition**

As ECOMAT is currently enjoying status as a pioneer product and technology, it has no direct competition. Nonetheless, as ECOMAT attains market prominence and witnesses commercial success, it is anticipated that similar products may be introduced by other companies.

Conversely, the domestic and overseas markets for disposable food packaging products are relatively competitive. Local companies such as, Kenweld (M) Sdn. Bhd, Magnificent Diagraph Sdn. Bhd., Katrin BJ Sdn. Bhd., Mega MDP Marketing Sdn. Bhd., Diethlem Malaysia Sdn. Bhd., Able Enterprise Sdn. Bhd. and Yong Kam Fook Plastic Industries Sdn. Bhd produce various paper, plastic and styrofoam based disposable food packaging products, which are marketed in major supermarkets, hypermarkets and convenience stores. In addition, Grenidea Technologies Pte. Ltd. ("Grenidea"), a company based in Singapore, sources ECOFIBRE, amongst other materials such as coconut coir, rice husk and wheat straw, to produce agrofibre disposable food packaging

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material, presenting potential competition to ECOPAK in the near future. Grenidea uses its patented binding agent called "Agro Binder" to produce agrofibre packaging in the form of plant containers, bento bowls, burger boxes, chicken rice plates, and food trays.

### **Government Legislation, Policies and Incentives**

There are currently no specific regulations governing the recycling of biomass in Malaysia nor is the Board currently aware of any specific material peculiarity of the industry.

However, the Government has implemented and legislated various environmental regulations to that effect. These are as follows:-

- **Environmental Quality Act 1974**

The move towards stringent enforcement of the Environmental Quality Act 1974, will see a greater number of palm oil mills being required to adhere to its provisions. Such enforcement will ensure that the "zero burning" policy is adopted, and as such, requiring alternative disposable methods to be considered in the management of oil palm biomass.

- **Enforcement by Governmental Authorities**

The Department of Environment, Malaysia ("DOE"), the Natural Resources and Environmental Board ("NREB") of Sarawak, and Environment Conservation Department ("ECD") of Sabah are the local regulatory bodies that implement, legislate, and enforce environmental regulations. These three organisations have imposed strict legislations for environmental quality control to encourage factories, manufacturers and companies to better understand the importance of recycling and caring for the environment.

### **Future Prospects Of The Oil Palm Biomass Recycling Industry**

The recycling and commercial use of EFBs is a significant achievement in Malaysia. The recycling technologies have good potential for commercial success in Malaysia. As the concept of recycling becomes more accepted and practised, companies that provide additional value creation and alternate solutions to waste disposal such as Ecofuture Bhd. have the potential to successfully dominate and lock in a first mover advantage in a market that remains relatively untapped but is highly lucrative. With growing preference and adoption of environmentally



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friendly solutions in everything that we do, the technologies developed by the Group hold very strong commercial and economic prospects that benefit both the Group and Malaysia.

Frost & Sullivan has prepared this report in an independent and objective manner and has taken adequate care to ensure the accuracy and completeness of the report. We believe that this report presents a true and fair view of the industry within the limitations of among others, secondary statistics and primary research. Our research has been conducted with an "overall industry" perspective and may not necessarily reflect the performance of individual companies in this industry. We are not responsible for the decisions and / or actions of the readers of this report. This report should also not be considered as a recommendation to buy or not to buy the shares of any company or companies.

Yours Sincerely



Sanjay Singh  
Director  
Industrial Practice