

The Malaysian Surveyor

THE PROFESSIONAL JOURNAL OF ROYAL INSTITUTION OF SURVEYORS MALAYSIA



Conferment of **Royal Status** to RISM

5th

Anniversary
1961–2011

**The 50th RISM
Annual General Meeting**
Session 2010-2011

Managing Stress
The Connection between
Thoughts, Feelings & Stress



RISM'S 50TH YEAR CELEBRATIONS

CALENDAR OF EVENTS FOR 2011

DATE	ACTIVITIES/EVENTS	LOCATION/VENUE
27 January	Visit to Persatuan Bagi Kebajikan Anak-Anak Terencat Akal) – Charity Project	Kuching
17 February	Launching Of Commemorative Book	Crowne Plaza Mutiara Hotel, KL
18 February	Zero KM Project – Identifying The Starting Point Of A Distance	Kota Kinabalu
19 February	One Malaysia Gathering/Open House	ISM Johor's new Bldg in UTM
19-20 February	Career Guidance (Exhibition in International Education Fair with other professional bodies)	Kuching
26-28 February	GLS Division Junior Organisation for Geomatic and Geoinformatic Students (JOGGS) Sub-Committee with the theme "Geomatics Capability Enhancement Project"	Akademik Pembangunan Belia Malaysia (APBM) Pasir Panjang, Port Dickson
28 February	GLS Division - Charity visit to Rumah Seri Kenangan, Seremban	Seremban, NS
20 March	Family Walk/Gotong Royong	Bukit Gasing, PJ
22-23 March	4 th ISM Sabah Surveyors Congress	Promenade Hotel, KK
25 March	ISM Northern Branch's Surveyors' Congress	Penang
26 March	a. Sarawak Branch's AGM b. Northern Branch's AGM	Kuching Penang
March/April	RISM-ICI Library Project	PJ/KL
2 April	a. Sports Carnival b. Surveyors Career Day c. Official Opening of ISM Building	Inspen UTM, Skudai Block M40, UTM, Skudai
16 April	RISM Open Day	Kuching
23 April	Amazing Property Hunt	Penang
23-24 April	Futsal Tournament	Ampang Sports Planet
30 April	Treasure Hunt	Kota Bharu
23-25 May	Seminar on "The Wealth Of Iskandar Malaysia"	Persada Johor International Convention Centre, JB
May	RISM's 50 th Family Day	Taman Desa Water Theme Park, KL
7 May	RISM Sarawak Anniversary Dinner	Kuching
20 May	Northern Branch's Annual Dinner	Penang
11 June	Golf Tournament	Selangor/KL
22-24 June	11 th SEASC & 13 th ISC	PWTC, KL
25 June	50 th AGM	PWTC, KL
June/July	BS International Congress	Penang
June/July	Historical Site Treasure Hunt & Family Day	Penang
July	RISM Johor Branch's Annual Dinner	Persada Johor International Convention Centre, JB
8 July	50 th Anniversary Dinner	Hotel Istana, KL
July-September	Tg Dato Project: ➢ Railing for Lookout Point ➢ Marking of Sea Coast Boundaries	Kuching
August	RISM Charity Golf	Kuching
19-20 September	QSIC	Penang
October	Community Projects: ➢ CPR Training ➢ Blood Donation ➢ Heritage Mark The Trail	Penang
October/November	22 nd NREC	PJ/KL

The **Malaysian Surveyor** is a quarterly publication which touches upon the development of the surveying profession, innovations in the surveying technology and surveyors' contribution towards market and building industry.

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EDITORIAL

CONFERMENT OF THE ROYAL STATUS TO THE INSTITUTION OF SURVEYORS, MALAYSIA



Associate Professor
Sr Dr. Ting Kien Hwa FRISM

Editor
Editorial Board

The 50th Anniversary Celebration of the Institution culminated with the conferment of the Royal Status by his Royal Highness Sultan Sharafuddin Idris Shah Alhaj Ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Alhaj, Sultan of the State of Selangor Darul Ehsan on 28 March 2011. A Royal Dinner was held on 14 September 2011 at the Istana Hotel, Kuala Lumpur to commemorate this landmark event. With the conferment, the Institution is now known as the **Royal Institution of Surveyors Malaysia (RISM)** and is the first professional body in Malaysia to be conferred the Royal Status.

Every members of the Royal Institution has now the responsibility to uphold the image and integrity of the Institution and the surveying professions. The Royal Status of the Institution endow on each members in the public and private sector the duty to perform their duties and responsibilities in an utmost professional manner guided by the best professional standards, guidelines and practice.

Members should play a more significant role not only in their surveying professions but also to be more visible and active in contributing to the society, community, education, protection of public interests, environment and sustainability issues.

The Institution shall contribute towards policy making, providing comments on current issues relating to the surveying disciplines and professions particularly on land, building and construction in the built and natural environment.

The surveying profession is changing fast resulting in new challenges. RISM needs to provide guidelines for its members and position papers to advise the authorities to meet the challenges in areas such as globalisation, liberalisation, sustainable development and environment.

To remain relevant, the Institution will continue to focus on membership development where new members are the life-blood of the Institution; to promote and advance the surveying disciplines and safeguarding the interests of surveyors. The Royal Institution should aspire to lead and provide leadership in all matters relating to the surveying profession.

Indeed the achievements by RISM in the first 50 years are remarkable. We look forward for the Royal Institution to be dynamic and continue to contribute towards nation building and help Malaysia to become a developed nation by 2020.

Congratulations

The Council and all members of Royal Institution of Surveyors Malaysia would like to extend their heartiest congratulations to



Sr John S. C. Loh
KMN, SSA, PJK, PPRISM, FRICS

**for his election as the President of Balai Ikhtisas Malaysia (BIM)
for the 2011/2012 term.**

We are proud and honoured that Sr John S. C. Loh, our Past President, has been recognized for his services rendered to the surveying profession and the community at large. We hope that his exemplary services and leadership will motivate younger members in the surveying profession to scale greater heights.

Celebration Activities for the 50th Anniversary

1961-2011



President's Address at the *RISM's 50th Anniversary Dinner & Conferment of Royal Status*

14 September 2011 at Hotel Istana, Kuala Lumpur



THIS IS INDEED AN AUSPICIOUS NIGHT FOR THE Royal Institution of Surveyors Malaysia (or RISM), with Your Majesty gracing the occasion. On top of that, I am proud to say that this is the first time in Malaysia; a prestigious royal status will be officially conferred to a professional institution like ours. Akin to our close foreign counterpart, the Royal Institution of Chartered Surveyors (or RICS) which was granted royal status from Queen Victoria in 1881; RISM, after 50 years of existence, will this evening be formally conferred a similar status by His Majesty, Sultan Sharafuddin Idris Shah Al-Haj Ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Al-Haj. On behalf of the Institution, I wish to express our heartfelt gratitude and appreciation to DYMM Tuanku for this royal status conferment, and also for accepting to be our Royal Patron.

Celebration Activities for the 50th Anniversary

1961-2011

HOTEL ISTANA KUALA LUMPUR



The surveying profession in our country comprises of four distinct disciplines, which are closely related to each other. The four disciplines are (1) Building Surveying, (2) Geomatic and Land Surveying, (3) Quantity Surveying and (4) Property Management, Valuation and Estate Agency Surveying. RISM is the umbrella organisation representing these professions in Malaysia. The membership of RISM comprises primarily of surveyors in private practice; as well as surveyors in the public sector, statutory bodies, government-owned agencies, institutions of higher learning and the corporate sector. Currently, more than 5,000 professionals are registered as members with RISM.

Over the past 50 years, the Institution has contributed to the economic growth of Malaysia, and in particular the development and management of our built environment. Surveyors of the four disciplines have performed their duties with the highest professional and ethical standards. They played a key role in supporting efficient land markets and land use, as well as effective natural resource and environmental management. These functions underpin development and innovation for social justice, economic growth and environmental sustainability. With a wealth of experienced and professional members, the Institution had provided quality services to their clients and this include providing invaluable advices to the Government.

RISM started out with two professional bodies in 1961, namely the Malayan Institution of Surveyors and the Institution of Land Surveyors, before merging to become the Institution of Surveyors, Malaysia on 19 June 1966. Even though RISM is celebrating its 50th anniversary this year, the various professions within RISM itself have been in existence long before that. Land surveying professionals, for example, have been surveying the nation since 1885. And





the Department of Survey and Mapping had celebrated its 125 years of existence last year. The profession then had provided the essential components for land ownership, in the form of basic survey framework. This framework had been instrumental in catapulting the nation, from an agro-based economy to a manufacturing based economy, and currently to a vibrant service oriented one; which in turn will set the nation to becoming a developed and high income nation by 2020.

Since its formation in 1961, RISM leadership in the surveying field has progressed, from within Malaysia to beyond its shores. RISM has been involved and associated with various international Surveying bodies and Associations, such as the Commonwealth Association of Surveying and Land Economy (CASLE), International Real Estate Federation (FIABCI), ASEAN Federation of Land Surveying and Geomatics (AFLAG), Royal Institution of Chartered Surveyors (RICS) and the International Federation of Surveyors (FIG); to name just a few. The association and alliance at the international level, evidently provides a good platform to strengthen relationship, between the various professional institutes, and help promote cooperation and upkeep of the surveying profession.

In this regards, I would like to mention some distinguished RISM members, who are currently leaders in the International arena. They include:

- Past President, Sr Teo Chee Hai, who is currently the President of FIG, for year 2011-2014;
- Past President, Sr Ong See Lian, who is now the President of RICS, for the year 2011-2012;
- Past President Datuk Prof. Sr Dr. Abdul Kadir Taib, the current Chairman of the United Nations Group of Experts on Geographical Names (UNGEGN); and



- Past President Sr Elvin Fernandez, the current Secretary General of Asean Valuer's Association (AVA).

The Institution has played a key role towards nation building, in setting standards for professional services and performance, as well as establishing code of ethics in the surveying industry. It will continue to excel in upholding the surveying profession, and contribute towards the sustainable development of the country. With the right mental attitude and commitment entrenched in all its members, RISM will continuously strive to be a world class professional organisation. This is well encapsulated in our

Celebration Activities for the 50th Anniversary

1961-2011



strategic plan formulated in 2005, and the plan stipulated the agreed vision, mission and values of ISM. Amongst others - we will strive to be a world-class professional surveying institution and a centre of excellence in surveying. We will continuously review our strategies; in order to align with current and future needs, and to establish concrete way-forward action plans.

To better serve the nation professionally, and to maintain quality amongst members, RISM frequently organises conferences and seminars, both at national and international levels. This

allows members to further enhance and expand their knowledge, in keeping with the advancement of technologies, and to be more innovative in delivering their services. The recently concluded 11th South East Asian Survey Congress and 13th International Surveyors' Congress organised by RISM in June 2011 was a case in point. It was a great success that surpasses all targets set, with large participation by both local and foreign participants. It was duly acknowledged as being a world class conference by dignitaries that participated, as well as related international industry media.

On the Education front, ISM has programmes with secondary schools and Universities. This is to educate students and to impart knowledge on the role of the surveying profession in nation building. Besides that, ISM is also active in its corporate social responsibility, through its involvements in various charitable activities, as well as social programmes.

RISM is looking forward to a promising future. It is only right that we acknowledge the fact that we are building on a foundation laid by our founding forefathers. And this evening, I would like to request everyone here to once again renew a desire - a desire which first germinated in 1961 by our founding forefathers - *the desire to see that the Institution continues to provide outstanding contribution, in the development of the surveying disciplines, and the endeavour to gain national and international recognition.* So, in the spirit of this 50th anniversary celebration, it is my earnest hope that following this, we will continue to strive for the attainment of the common goal for our future prosperity, and the well-being of our beloved profession, not only for the next 50 years, but also beyond that. And in





line with the Institution's newly conferred royal status, we pledge to uphold its professionalism to the highest level at all times.

Before I conclude, once again, on behalf of the Institution, I would like to express my deepest appreciation and gratitude to his royal highness, Sultan Sharafuddin Idris Shah Al-Haj Ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Al-Haj, for his graciousness in conferring the royal status to RISM, and for his acceptance to be our royal Patron.

I wish to also thank YAM Tengku Indera Setia Selangor, Tengku Datuk Seri Ahmad Shah Al-Haj, ibni Almarhum Sultan Salahuddin Abdul Aziz Al-haj, and YAM Tengku Puan Indera Setia Selangor, Tunku Irinah binti Almarhum Tuanku Ja'afar, our honourable ministers and their spouses, distinguished guests, fellow surveyors and all those present at tonight's dinner. Thank you all for coming and being part of this evening's memorable event.

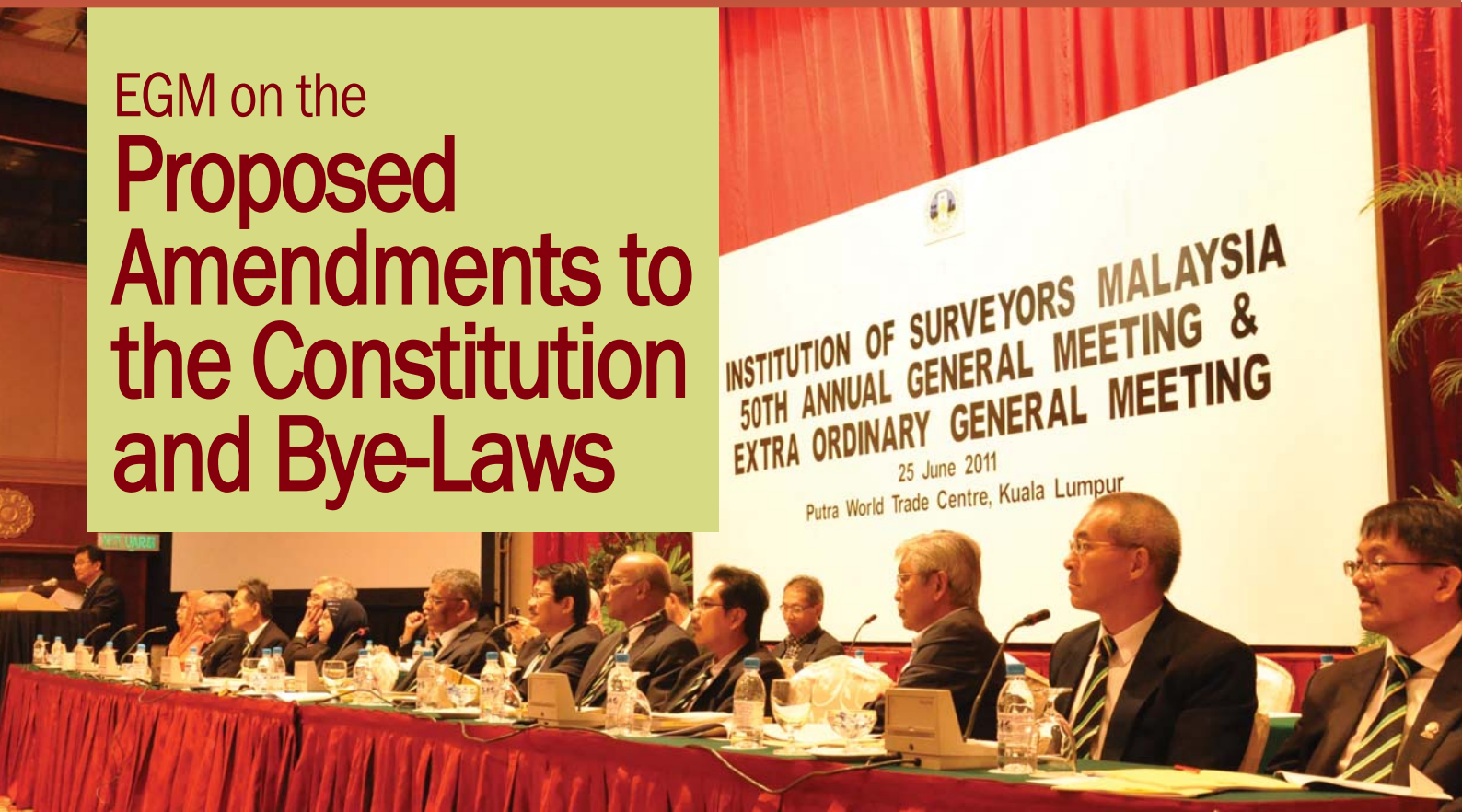
Last but not least, my sincere thanks and appreciation to the organising committee members, and the Secretariat for their hard work and effort, in ensuring the success of tonight's programme.

Thank you. ▣



EGM on the Proposed Amendments to the Constitution and Bye-Laws

INSTITUTION OF SURVEYORS MALAYSIA
50TH ANNUAL GENERAL MEETING &
EXTRA ORDINARY GENERAL MEETING
25 June 2011
Putra World Trade Centre, Kuala Lumpur



THE RESOLUTION ON THE proposed amendments to the Constitution and Bye-Laws due to the "Royal" status bestowed on the Institution of Surveyors, Malaysia (ISM) by His Royal Highness, the Sultan of Selangor on 28 March 2011 and to amend the clause 70 (1) and in Section IX, 19 (2) (c) of Bye -Laws at the Extra Ordinary Meeting held on 25 June 2011 at Putra World Trade Centre (PWTC), Kuala Lumpur. A total number of 706 votes were received including 347 voting forms that were issued with 359 valid proxy forms.

All the members present voted unanimously in favour of the proposed to include the word "Royal" and ISM to be changed to the "Royal Institution of Surveyors Malaysia" with the abbreviation RISM, which is hereinafter referred to as the "Institution" and the Patron of the Institution is His Royal Highness, the Sultan of Selangor and also including the initial of all designations. ■





ION OF SURVEYORS MALAYSIA ANNUAL GENERAL MEETING & ORDINARY GENERAL MEETING

25 June 2011

Putra World Trade Centre, Kuala Lumpur



Celebration Activities for the 50th Anniversary

1961-2011



The 50th RISM Annual General Meeting session 2010-2011

THE ANNUAL GENERAL MEETING (AGM) OF THE RISM WAS HELD ON 25 JUNE 2011 AT PUTRA WORLD Trade Centre (PWTC), Kuala Lumpur. Sr Ahmad Fauzi Nordin becomes the 2011-2012 President of RISM, taking over from Sr Elvin Fernandez, who would retire as Immediate Past President. The AGM also announced that Sr Dr. Mohd Yunus were elected as Honorary Secretary General and Sr Yip Kit Meng as Honorary Treasurer General. ■

The following Office Bearers and Councilors were declared elected:

Principal Office Bearers

President

Sr Ahmad Fauzi Nordin

Vice President

YBhg. Dato' Sr Abdull Manaf Hj Hashim

Honorary Secretary General

Sr Dr Mohd Yunus Mohd Yusoff

Honorary Treasurer General

Sr Yip Kit Meng

Council Members

Immediate Past President

Sr Elvin Fernandez

Vice President Geomatic & Land Surveying Division

Sr Hasan Jamil

Vice President Quantity Surveying Division

Sr Wong Weng Hong, Eddie

Vice President Property Management, Valuation & Estate Agency Surveying Division

Sr Adzman Shah Mohd Ariffin

Vice President Building Surveying Division

Bridg. Gen. Sr Hj Mohd Amin Mohd Din

Sarawak Branch Chair

Sr Lau Chai Seng

Sabah Branch Chair

Sr Sia Siew Fang, Bernard

Johor Branch Chair

Sr Mohd Farid Naim

Northern Branch Chair

Sr Lau Wai Seang

East Coast Branch Chair

Sr Dr. Zainal A Majeed

Chairman, Examination Board

Sr Chee Kok Thim

Chairman, Education & Accreditation Board

YBhg. Dato' Seri Sr Hj Md Isahak Md Yusuf

Chairman, Board of Building Management

YBhg. Dato' Sr Mani Usilappan

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Councilor

Prof. Sr Dr. Hj Wan Muhd Aminuddin Wan Hussin

Councilor

Sr Hj Syed Mohamad Nasir Syed Tahir

Councilor

Assoc. Prof. Sr Dr. Hjh Wan Maimun Wan Abdullah

Councilor

Sr Roznita Othman

Councilor

Sr Low Han Hoe

Councilor

Sr Mohd Zam Mustaman

Councilor

Prof. Sr Dr. Md Najib Ibrahim



11th South East Asian Survey Congress (SEASC) and 13th International Surveyors' Congress (ISC)

THE COMBINED EVENT OF IITH SEASC and 13th ISC was successfully held on 22 - 24 June 2011 at Putra World Trade Centre, Kuala Lumpur and organised in conjunction with and as part of RISM's 50th Anniversary celebration. RISM in collaboration with ASEAN Federation of Land Surveying and Geomatics (AFLAG) and the Royal Institution of Chartered Surveyors (RICS) were most honoured and privileged to play host to both prestigious events. The theme of the event was "Innovation Towards Sustainability". It was officiated by the Honourable Minister of Natural Resources and Environment, Malaysia, YB Dato Sri Douglas Uggah Embas.

The Congress highlighted its initiatives aimed at encouraging the convergence, sharing and use of innovative technologies and knowledge as well as other initiatives to forge new collaborations and identify potential avenues for research, development and innovation across all related disciplines for the benefit of the profession and the community towards sustainable development.

A total 859 participants from Malaysia, Singapore, South Korea, Brunei, Indonesia, China, Australia, Hong Kong, Philippines, Macau, UK, USA, Italy, Vietnam, Cambodia, Thailand, Belgium, Trinidad, Pakistan, Germany, Saudi Arabia, Holland and Taiwan attended. The participants were pleased with the contents of the presentation and found the overall Congress to educational and informative. ■



The keynote papers were presented by:

Keynote Session

- i. **Dr Keith Clifford Bell, The World Bank**
Focusing on Innovative and Sustainability in Rural and Urban Land Development: Experiences from World Bank Development Support for Land Reform
- ii. **Prof. Ian Williamson, The University of Melbourne**
Lessons for Federal Countries that have State Land Registries - The Australian Experience
- iii. **Mr Brent Jones, ESRI's Industry Manager for Survey, Cadastre & Engineering**
GIS, Sustainability and the Surveyor
- iv. **Mr Goh Cheok Weng, Managing Director of ICI Paints (M) Sdn Bhd**







Plenary Session

- i. **Dr Abbas Rajabifard, President of the Global Spatial Data Infrastructure (GSDI) Association**
Spatially Enabled Societies - the Global Perspective and the Role of Surveyors
- ii. **Prof. Chris Rizos, Vice President International Association of Geodesy**
"Out with the Old, in with the New": Geodesy as an Earth Observation Discipline Supporting Environmental Monitoring and Sustainability Agendas
- iii. **Mr Christiaan Lemmen, Director, International Office for Cadastre and Land Records - FIG**
Society Driven Innovations in Land Administration
- iv. **Prof. William Cartwright, President International Cartographic Association**
Collaborative, Crowd-Sourced and Self-Generated Maps: Opportunities, Issues and Challenges for the Cartography / Giscience Community
- v. **Prof. Roger Flanagan, Professor of Construction Management, University of Reading**
Technology Innovation for a Sustainable Business
- vi. **Ing. Robert Sinkner, Chair Commission 10 (Construction), FIG**
Sustainable Development in using of Maps and Geospatial Data for GIS/MIS System in Comparison with Availability of Graphical Data in the last Centuries in the Czech Republic and in Europe
- vii. **Dr Ann Heywood, Principal, The College of Estate Management, United Kingdom**
Encouraging the Green Occupier
- viii. **Sr Elvin Fernandez, President of Royal Institution of Surveyors Malaysia (RISM)**
Innovation Towards Sustainability in the Surveying Discipline of Valuation
- ix. **Sr Ong See Lian, President-Elect Royal Institution of Chartered Surveyors (RICS)**
Imageneering the Built Environment Industry and Profession
- x. **Mr Heera Singh, HEERA Training and Management Consultancy**
Managing Innovation and Change
- xi. **Dr Michael Sutherland, Chair Commission 4 (Hydrography), FIG**
Implementing a Marine Cadastre
- xii. **Prof. Michael L. Riley, Director School of Built Environment, Liverpool John Moores University, United Kingdom**
Sustainable Property Management Good Practice: Lesson to Learn
- xiii. **Mr Chris Gibson, Vice President & Executive Committee Member TRIMBLE**
Enabling Productivity and Sustainability through Innovation

The 15th PAQS Congress 2011



THE 15TH PACIFIC ASSOCIATION of Quantity Surveyor (PAQS) World Congress was held in Colombo, Sri Lanka on 23 to 26 July 2011. The event was graced by the Power and Energy Minister, Champika Ranawaka and Deputy Minister of Finance and Planning, Gitanjana Gunawardena. The keynote speech of the forum was given by Peter Cox.

The theme selected for the Congress was "Cost Management in a World Emerging from Adversity". This has emerged as a responsive call to the realities that most countries in the world are facing today, adversity in many forms and the need to emerge from them.

The Congress is an international platform where the top professionals from the global industry are encouraged to collaborate and network towards professional advancement and development of the construction industry through sharing strategies, knowledge and from countries in Asia Pacific regions. ■



The delegates from Malaysia during the opening ceremony



The Malaysian delegates during the farewell dinner



Launched By YBhg. Dato Sr Hj Abdull Manaf Bin Hj Hashim, Senior Director Of Contract & Quantity Surveyor

The 2nd International Building Control Conference

Towards Sustainable Built Environment

Sr Suriani Bt Ngah Abdul Wahab

THE 2ND INTERNATIONAL Building Control Conference (IBCC) was held on 11 and 12 July 2011 at G Hotel, Penang with the theme "Challenges and Innovations in Building Performance and National Asset Management". It was launched by YBhg Dato Sr Hj Abdull Manaf Bin Hj Hashim, Senior Director of Contract & Quantity Surveying Division, Department of Public Works (JKR) Malaysia. This conference was organised in conjunction with the Royal Institution of Surveyors Malaysia (RISM) 50 year celebrations and inaugural with George Town World Heritage listed celebration month. In regard to Building Surveying Division, RISM is in collaboration with UiTM Perak. The 2nd International Building Control Conference is organized by the Department of Building Surveying UiTM Perak and sponsored morally and financially by the Royal Institution Of Surveyors Malaysia (RISM), Universiti Teknologi Mara (UiTM), Perak, Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM) and Malaysian Works Department (JKR).

The aim of this conference is to provide an excellent opportunity to share, to exchange



knowledge and experience for professionals, government officers, academicians, students and industrial people worldwide. As a conference for the input of information and sharing as well as the exchange of experience, the two-day event provided participants a window of opportunities to meet fellow expertise and professionals from other parts of the world, to listen

to and share first hand issues and to reflect on solutions and best practices by others. Besides, it also creates occasion for members of the academic, researchers, and graduate students to present their on-going researches that significantly contribute to the construction industry. In addition this conference also consolidates opportunities and collaborations for all parties in contributing to the

Working Committee Members 2nd IBCC 2011



First day registration

development of domestic and global construction industry. It also provide an avenue for participants to establish networking and industrial linkages to further enhance the educational research capability or industry related to the conference, establish collaborative possibility between government sectors and professional surveyors to effectively contribute to the environmental development and national assets management by delivering strategic and innovative services. CPD points also applied by ISM, LJ, CIDB, LAM, BQSM, BEM, LPBM and BOVEA.

The Conference began with the registration of all participants and presenters. Approximately about 150 people who participated in that event came from various organisations such as UiTM, IIUM, USM, KLIUC, UNI.COLLEGE LONDON and UKM. The conference started off with six keynote speakers who are experts in their respective fields. They are Professor Keith Alexander and Mr. Philip Godwin from the United Kingdom, Associate Professor Dr Azlan Shah Ali from University Malaya, Mrs Maimunah Hj Mohd Shariff from MPSP Penang, Professor Low Sui Pheng from National University of Singapore and Associate Professor Dr Siti Norlizaiha Haron from UiTM Perak.

On the second day of the conference, which was on the 12 July 2011, we conducted parallel sessions. The presentations were divided into 2 (two) separate rooms according to the areas of research involving 36 papers. The conference ended smoothly at 04:30pm. Thanks to all those who have been involved directly and indirectly in the success of this conference, especially the commitment of the committee members who have sacrificed their valuable time and energy to promote and to ensure the success of this conference. ■





Visit by Students of Universiti Teknologi Malaysia International Campus Kuala Lumpur to RISM

FORTY-ONE FIRST YEAR DIPLOMA in Quantity Surveying students from the Universiti Teknologi Malaysia accompanied by a lecturer visited the Royal Institution of Surveyors, Malaysia (RISM) on 18 July 2011. The aim of the visit was to expose the students to the role of professional quantity surveyors, the route to become a registered quantity surveyor as well as the functions of RISM in the construction industry. A talk was presented by the QS Division Chairman, Sr Eddie Wong Weng Hong and Sr Fadilah Mohamad Camaludin who is the Chair of the Junior Organisation of the QS Division. ■





News release by RISM

Institution of Surveyors Malaysia Conferred Royal Status By DYMM Sultan of Selangor

KUALA LUMPUR, SEPTEMBER 14, 2011 — The Institution of Surveyors, Malaysia with a proud 50-year heritage, is now known as the Royal Institution of Surveyors Malaysia (RISM) following the conferment of royal status by DYMM The Sultan of Selangor in April 2011.

The official conferment ceremony was held tonight at the Hotel Istana in Kuala Lumpur where the 'watakah' or royal scroll was ceremoniously presented by DYMM The Sultan of Selangor to RISM President Sr Ahmad Fauzi Nordin in the presence of distinguished guests. The new RISM logo was also unveiled to the audience.

Among the guests were YAM Tengku Indera Setia Selangor Tengku Datuk Seri Ahmad Shah Alhaj ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Alhaj and his wife YAM Tengku Dato' Seri Irinah binte Almarhum Tuanku Ja'afar. Also present were 900 guests including RISM past presidents, council members and distinguished office bearers from the surveying fraternity including Sr Ong See Lian, President of the Royal Institution of Chartered Surveyors and Mr Teo Chee Hai, President of the International Federation of Surveyors and their spouses.

In conjunction with the auspicious occasion, two awards were presented; the first was the presentation of the 'Malaysian Surveyor of the Year' award to Datuk Prof. Sr Dr Abdul Kadir bin Talib, Director General of the Department of Survey and Mapping Malaysia (JUPEM) and the second was the conferment of Honorary Fellow on YB Senator Dato' Sri Shahrizat Abdul Jalil, Minister of Women, Family and Community Development.

Datuk Prof. Sr Dr Abdul Kadir bin Talib, who is also a Fellow of the Royal Institution of Chartered Surveyors, UK was President of the RISM from June 2005 to June

2006. During his term as President he was instrumental in introducing strategic planning for the Institution and getting the Registrar of Society to approve the prefix 'Sr' denoting Surveyor before the name of all members.

Dato' Sri Shahrizat Abdul Jalil, who is an Honorary Member of the RISM, has consistently provided assistance in promoting the objectives of the RISM through its various activities to promote nation building.

In his speech, RISM President Sr Ahmad Fauzi Nordin said, "The Institution has played a key role towards nation building, in setting standards for professional services and performance, as well as establishing code of ethics in the surveying industry. It will continue to excel in upholding the surveying profession, and contribute towards the sustainable development of the country.

"With the right mental attitude and commitment entrenched in all its members, RISM will continuously strive to be a world class professional organization. This is well encapsulated in our strategic plan formulated in 2005, and the plan stipulated the agreed vision, mission and values of ISM. Amongst others - we will strive to be a world-class professional surveying institution and a centre of excellence in surveying. We will continuously review our strategies, in order to align with current and future needs, and to establish concrete way-forward action plans.

"So, in the spirit of this 50th anniversary celebration, it is my earnest hope that following this, we will continue to strive for the attainment of the common goal for our future prosperity, and the well-being of our beloved profession, not only for the next fifty years, but also beyond that. And in line with the Institution's newly

conferred royal status, we pledge to uphold its professionalism to the highest level at all times," said Sr Ahmad Fauzi.

The RISM is the professional institution representing the surveying profession in Malaysia. As a profession, surveying comprises four disciplines, namely Building Surveying; Geomatic and Land Surveying; Property Management, Valuation and Estate Agency Surveying; and Quantity Surveying. Its membership comes from all corners of Malaysia including Sabah and Sarawak and comprises professional surveyors in private practice, public sector, government-owned agencies, institutions of higher learning and the corporate world. A number of its members have ventured into the political arena.

As at March 2010, there are 5,119 surveyors registered with the ISM. Of these 2,444 are quantity surveyors; 1,308 are geomatic and land surveyors; 971 are property management, valuation and estate agency surveyors; and 396 are building surveyors. ■

About the RISM

The Royal Institution of Surveyors Malaysia (RISM) is the professional institution representing the surveying profession in Malaysia and consists of four main divisions, namely:

- Property Management, Valuation and Estate Agency Surveying
- Geomatic and Land Surveying
- Quantity Surveying
- Building Surveying

The affairs of the Institution are managed by the Council whose members are elected annually. This Council, which is presided over by a President, directs and manages the affairs of the Institution. At present, the Institution has five branches in Sarawak, Sabah, Johor, Northern and East Coast. A Chapter was recently established in the United Kingdom and more Chapters are expected to be set up in the Asian region.

Loh Takes Over BIM

Source: The Star (Metro), 16 September 2011, p.19 Business

Recently, John S. C. Loh, a penangite, was elected at the 38th annual general meeting to head the Malaysian Professional Centre also known as Balai Ikhtisas Malaysia (BIM).

The 63-year old is a former student of St. Xavier's Institution and a chartered surveyor by training and is an alumni of the University of Hull, the National University of Singapore and the Wolfson College, University of Cambridge.

Amongst the honours he has received are the K.M.N. (Federal), S.S.A. (Selangor) and the P.J.K. and P.K.T. (Penang). He is currently the chairman of the AAA Group of Valuer, Property Managers, Estate Agents and property Consultants.

Aside from the above, Loh continues to be active in the Lions Clubs International having served in the position as District Governor for Malaysia, Singapore and Brunei in 1981 and 1982.

He has also served many other non-governmental organisations in various capacities including as president of the Tree Planting and Protection Group of the Malaysian Nature Society, the president of the Quality Restroom Association of Malaysia and vice-president of the World Toilet Association.

He was in the executive board of the International Real Estate Federation and the Pacific Basin Economic Council.

Amongst other achievements include him and his wife being listed in the *Malaysian Book of Records* for planting 110,416 trees in one minute all over Malaysia in 2000.

Loh hopes to engage Malaysians with professional qualifications from the broad spectrum of professions to play a greater role in nation-building through involvement in the transformation programme of the New Economic Model focusing on human capital development, public delivery system and enhancing competitiveness, productivity and efficiency of the services sector.

BIM was established with the assistance of the Commonwealth Foundation in 1973 to serve as the umbrella body for all professions recognised by the legislative acts of parliament in Malaysia.

Membership has since been extended to include all other professional groups and disciplines where the recognition by the government authorities is still in progress.

The Malaysian Association of Productivity is an associate member and Prime Minister Datuk Seri Najib Tun Razak is the patron, just like his predecessors. ■

Heartiest Congratulations

to



Royal Institution of Surveyors Malaysia

on the conferment of the Royal Status on 28th March 2011

by

His Royal Highness Sultan Sharafuddin Idris Shah Alhaj Ibni Almarhum Sultan Salahuddin Abdul Aziz Shah Alhaj

D.K., D.M.N., D.K.(Terengganu), D.K.(Kelantan), D.K.(Perak), D.K.(Perlis),
D.K.(Negeri Sembilan), D.K.(Kedah), D.K.(Johor), S.P.M.S, S.S.I.S., S.P.M.J.

Sultan And Ruler Of The State Of Selangor Darul Ehsan And All Its Dependencies

with Compliments from



Lembaga Juruukur Tanah,
Semenanjung Malaysia



Lembaga Penilai, Pentaksir &
Ejen Harta Tanah, Malaysia



Lembaga Juruukur Bahan
Malaysia



Persatuan Juruukur Tanah
Bertauliah Malaysia



Persatuan Penilai, Pengurus Harta,
Ejen Harta & Perunding Harta Swasta
Malaysia



Koperasi Juruukur Tanah
Berlesen Berhad



Rahim & Co. Chartered
Surveyors Sdn. Bhd.



Pakatan International Md Isahak
& Rakan-rakan Sdn. Bhd.



KPK Quantity Surveyors
(Semenanjung) Sdn. Bhd.



First Pacific Valuers Property
Consultants Sdn. Bhd.



C H Williams Talhar
& Wong Sdn Bhd



Ukur Sekitar Sdn. Bhd.



Advanced Reprographics Solutions, Print & Design Bureau
Ritz Print Sdn. Bhd.



SHC Enterprise



Thank You

**His Royal Highness Sultan Sharafuddin Idris Shah Alhaj Ibni
Almarhum Sultan Salahuddin Abdul Aziz Shah Alhaj**

D.K., D.M.N., D.K.(Terengganu), D.K.(Kelantan), D.K.(Perak), D.K.(Perlis),
D.K.(Negeri Sembilan), D.K.(Kedah), D.K.(Johor), S.P.M.S, S.S.I.S., S.P.M.J.

**For Your Majesty's Gracious Conferment of the Royal Status and
consent to be the Patron of the Royal Institution of Surveyors
Malaysia on 28th March 2011**

With Utmost Sincerity,



Royal Institution of Surveyors Malaysia

Property Development Joint Venture In Malaysia

Sr. Siti Hafsa Zulkarnain*, Suriyana Mustafar, Nur Medeena Mahamood

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A joint venture is one of the mechanisms used to combine resources and expertise of two or more organisations in the production of goods and services. Such a method has been used in property development as a convenient and flexible vehicle to achieve a conjoint objective within a diverse entity. The purpose is to jointly share the risks and the rewards by contributing appropriate knowledge, skills and assets that are necessary in undertaking the development.



INTRODUCTION

SINCE THE BURDEN TO GARNER ALL RESOURCES needed to carry out a development by one company is heavy, the sharing of resources can relieve that burden whilst fulfilling the objective for every partner. Any combination of ownership can be used to establish a joint venture. Currently, some of the most common joint venture relationships are between developer, local government and institutional investor or lender undertaking a new development project. The lender provides funding, the local government invests the land and the developer contributes expertise to make the project a success. Property development is becoming more specialised, requiring skilled players to deliver a project successfully.

PROPERTY DEVELOPMENT JOINT VENTURE SCENARIO IN MALAYSIA

A joint venture can be defined as a separate entity formed by two or more companies with complementary strengths and differing percentage of ownership for each company. A joint venture is "the commitment, to subscribe the time, funds, facilities, and services by two or more legally separate interests, to an enterprise for their mutual benefit" (Tomlinson, 1970). The creation of a joint venture entails bringing together capital and skills of independent parties with the objective of carrying out a single business purpose. The joint venture was originally referred to as "joint adventure" whereby persons who were "jointly concerned" in an "adventure" came together for the pursuit of a common (but singular) business purpose.

Isaac (1996) defines property development as a process that involves changing or intensifying the use of land to

produce buildings for occupation. It is not the building and selling of land for a profit; land is only one of the raw materials used. He further explained that property development is an exciting, at times frustrating, complex, activity involving the use of scarce resources. It is a high risk activity which often involves large sum of money tied up in the production process, providing a product which is relatively indivisible. The performance of the economy, at both national and local levels, directly influences the process.

In recent years, other factors have influenced the formation of joint venture and these relate to the reduction of debt in the arrangements for development and, allied to this, the reduction in risk. As we know, the real estate industry has an insatiable appetite for capital and requires a great many and diversified skills to develop and manage property. Thus, the joint venture is a vehicle that can bring these interests together. Isaac (1996) mentioned additional reasons for forming joint ventures, they are listed as follows:

- a. The increased risk in real estate development
- b. The lack of equity in the property market and property companies are unable to raise new funds on their own accord in the market
- c. Pressure to reduce debt in the property sector, by the Bank of England and lenders
- d. Demands from overseas investors who have a preference for joint venture arrangement in their dealings

According to Linklaters and Paines (1990), joint ventures in property development can be divided into two main types, shown in Table 1 below:

Table 1: Types of Joint Venture Formation

No.	Type of Joint venture formation	Description
1.	Agreements between developers to carry out a major project	These fall into two sub-groups: a. Agreement to purchase a large development area with a view to break up the land between parties. This can be used for major town expansion projects or inner city regeneration. The parties will purchase the land, put in the major infrastructure and then, partition the development land between them. b. Agreement to jointly to carry out major development projects and to share the profits. The parties carry through the development and the end product results in a one-off profit if the development is sold or joint investment if the development is retained.
2.	Agreements between developers and other participators in a development to co-operate in and achieve the carrying out of the development.	This is the form of property joint venture that is most commonly encountered and most of what follows will be applicable to this type of property joint venture. On a large scheme, a number of developers may be involved and there will inevitably be overlap between (a) and (b) above.

The combination of these parties may be involved in a variety of ways, and the joint venture agreement will reflect their different interests, expectations of the projects, and in particular, their participation in its management, their share of the profits and their short- and long-term goals. Commonly, the developer will provide the necessary expertise and support to make the project a success. The value that the developer will add to the project will include, but will not be limited to the following:

- a) The developer will promote the interests of the land owner by:
 - i. Analysing the site and creating a concept for development of the land.
 - ii. Placing signage on the land to promote the project.
 - iii. Designing and engineering of a site plan for the project.
 - iv. Preparing promotional packets for zoning and marketing.
 - v. Initiating zoning talks with city/county.
- b) The developer will oversee/direct the following activities during development:
 - i. Formation of LLC.
 - ii. Marketing and sale of the project.
 - iii. Obtaining construction financing.
 - iv. Bidding and letting of construction contracts.
 - v. Money and materials management.
 - vi. Distribution of funds for expenses.
 - vii. Obtaining permanent financing.
 - viii. Distribution of proceeds.

Additionally, the land owner must be willing:

- a) To allow the developer adequate time to put the project together. The time varies, dependent upon the complexity of the project.
- b) To be financially capable of carrying the property and any debt that currently exists until the completion of the project.
- c) To secure subordination agreements on any property debt, and provide the same.
- d) To give partial releases as each phase is completed.

THE COMPLEXITY OF MANAGING JOINT VENTURE PROJECT AND ITS IMPLICATIONS ON THE DEVELOPMENT PROJECTS PERFORMANCE

Although joint ventures bring about success in overseas investment, it is also probably more problematic to manage than other entry mode hurdles: multiple national affiliations and multiple ownership (Shenkar and Zeira, 1987). Poor management of the problems in joint

ventures can lead to damaging consequences. Identifying the problems at an early stage associated with joint ventures and developing a system to overcome them will bring about better success.

a. Conflict among Joint Venture Partners

One main problem commonly encountered is the difference in management styles of the parent companies. Prior to the formation of a joint venture, any differences should ideally be identified early to determine a management style suitable for the joint venture and not the individual parent company. Failure to do so will bring about conflict and disagreements, and thereby lead to problems in co-ordination and morale, slow down the decision-making process and result in inefficiencies (Glaister, 1995).

b. Conflict among Joint Venture Managers

As most joint ventures transcend national boundaries, differences in cultural backgrounds among joint venture managers are unavoidable. Such differences have led to conflicts and misunderstandings which influence manager's attitudes and preferences toward appropriate managerial behaviour (Baird, Lyles and Wharton, 1990). It will also lead to failure on the part of the managers to understand one another and create conflicts in areas such as recruitment and dismissal, accounting and reinvestment of profits (Glaister, 1995). Another factor is the dual loyalty of managers between the joint venture and the parent company (Franko, 1971).

c. Dispute over Joint Venture Agreement

Negotiating a joint venture agreement is a long and arduous process in many countries and is often complicated by cultural, legal and bureaucratic factors (Shenkar and Ronen, 1987). At the negotiation stage, joint venture partners are usually too ready to accommodate one another's needs without much thought to the managers who are implementing the joint ventures. Dispute may arise when one partner or partners reverse a previously agreed decision thereby making it difficult for the joint venture manager (Eiteman, 1990).

d. After-effect of Failure

The problem affecting joint ventures is the consideration of possible consequences such as a failure. It will be obvious that a partner may find himself at a total loss of control in the joint venture investment although he may have decided earlier in favour of a joint venture in preference to available alternatives. According to Fong (1985), the possible failure of the joint venture will shroud a poor image for the parent corporation. Besides, such failure may prevent the company from investing again thereby limiting the company's plan to expand their business network.

e. Disagreement to Resolve

A joint venture relationship will inevitably give rise, at some stage or other, to differences and disagreements. These will need to be resolved. This will require considerable time and ongoing communication on the

part of senior management of both corporations if it is to be achieved constructively and effectively (Baird, Lyles and Wharton, 1990).

f. Lack of Autonomy in Decision Making

Joint ventures invariably involve the need for co-ventures to share management. This can lead to the lack of autonomy in decision making for the minority, especially for unequal joint ventures. A dominant parent venture may have overriding control on its minority partners as the majority has control and veto in joint ventures. The majority do not usually allow the minority to enforce any change of policy and decisions (Glaister, 1995).

g. Lack of Communication between Partners

Sometimes, there are joint venture partners playing passive roles. They only exert very little influence, resulting in lack of cohesion between partners. The partners have various expectations and demands, partly unexpressed, which complicate all negotiation and communication processes within the joint venture system. Sooner or later, this may lead to open conflicts (Franko, 1971).

h. Cultural and Technological Differences

Joint ventures involve two or more parties working together. This can expose differences of culture and technology which can seriously affect the speed and harmony of that working relationship. Culture can include not only different cultures of nationality but also, more importantly, corporate style and approach. Cultural and technological differences, if not understood, can lead to poor communication, mutual distrust and the end of the venture (Beamish, 1988).

i. Financing Problems

A particular source of difficulty is where the partners do not have a mutually agreed plan on how to fund the growth of the joint venture - or if financing calls are greater than originally anticipated and one partner is unable or unwilling to continue financing. Joint venture partners may have different profiles for financial returns from the venture. Each may also have to make judgements as to its own priorities in the light of other development opportunities and financing demands (Hewitt, 2001).

j. Lengthy and Costly Negotiations

The negotiations to establish the joint venture can themselves be lengthy as each party prepares its position and take time to build up its trust of the other partner; they are not speedy transactions to put together. They can also be costly relationships to establish - not only in terms of management time but also in the scale of setting-up cost generally (Hewitt, 2001).

THE ISSUES OF THE JOINT VENTURE IN DEVELOPMENT PROJECT: DIFFERENCES OF GOALS BETWEEN THE PARTIES INVOLVED

A joint venture is much more likely to be the result of a number of different motives which means that expectations are complex. This is one of the main reasons why it is vital for joint venture management to clarify its goals. The reasons for forming a joint venture are quite numerous and extend into all areas of business strategy. Harrigan (1986) gives a detailed analysis of goals and motives, and draws distinctions between internal, competitive and strategic reasons as follows:

No.	Analysis of goals & motives	Description
1.	Internal reasons	a. Spreading costs and goals b. Safeguarding resources which cannot be obtained via the market c. Improving access to financial resources d. Benefit economies of scale and advantages of size e. Access to new technologies and customers f. Access to innovative managerial practices g. Encouraging entrepreneurial employees
2.	Competitive goals	a. Influencing structural evolution of the industry b. Pre-empting competitors c. Defensive response to blurring industry boundaries and globalisation d. Creation of stronger competitive units
3.	Strategic goals	a. Creation and exploitation of synergies b. Transfer of technologies and skills c. Diversification

RESEARCH OBJECTIVES

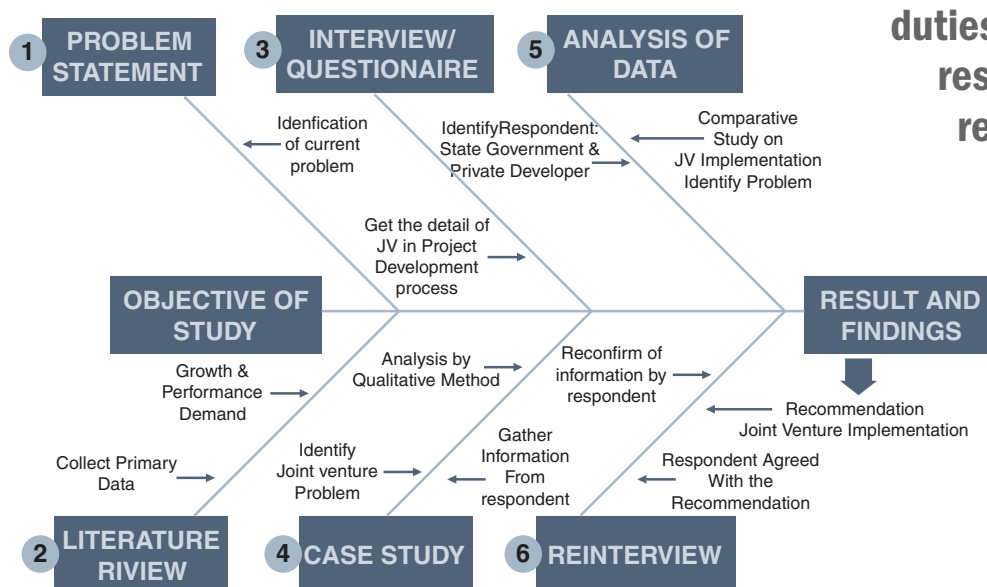
The objectives of this paper are as follows:

- i) To present the concept and legal framework of joint ventures in property development.
- ii) To identify the problems involved in joint ventures of property developments.
- iii) To discuss the successful factors affecting the performance of joint ventures.

RESEARCH METHODOLOGY

In carrying out the research, the right methodology is required to enable the compilation of data and information from various sources. It involves three main stages starting from collection of data, analysis of data, conclusion of findings, suggestions and recommendations related to each problem encountered. A systematic idea is required to have a clear understanding of all processes contributing to the paper work preparation. The methods used to undertake the research is stated in Figure 1 below.

Figure 1: Research Methodology



...it is advisable for the joint venture agreement to set forth in detail each joint venture partner's duties, obligations and responsibilities with regards to the joint venture.

The first stage involves literature review that is based on the secondary data collected from reading materials such as books, articles, seminar papers and other published information supporting the topic of joint venture in development projects.

The second stage requires interviews with the state government and private developer who are directly engaged with the joint venture in a development project. Analysis of data using qualitative methods is done through the collected reading materials and secondary data generated from the case study for each state government and private developer partnership in a development project.

The third stage comprises a conclusion which ends with recommendations of joint venture implementation to the current practice.

ANALYSIS

Questionnaires were distributed to 80 organisations including developers, contractors, consultants and clients who were involved in property development via mail and e-mail to acquire their opinions. Only 42 organisations respond. The main tool used in collecting the core data for the survey was structured questionnaires. The questionnaire has been designed to be simple and straightforward and was analysed using the SPSS Version 14 (Statistical Package for Social Science) software.

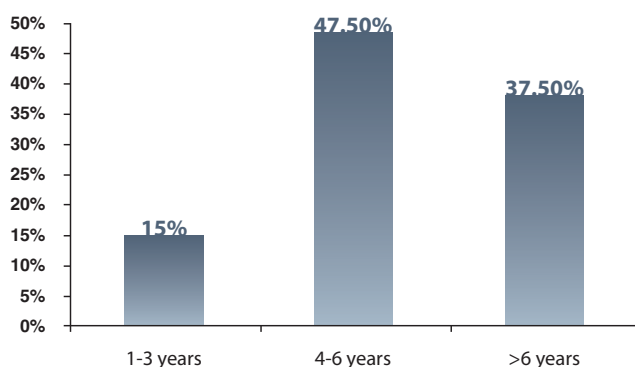
Section 1: Company Background

A. Analysis of Period involvement in Joint Venture

Analysis of period involvement was accomplished according to the number of years of experience involved in joint venture projects.

As shown in Figure 2, out of 40 respondents who have experience in joint venture property development, almost half of the respondents (47.5%) have been involved in joint venture property development for about four to six years. Six respondents (15.0%) have been involved in joint venture property development for one to three years. There were 15 respondents (37.5%) that have joint venture property development experience for more than 6 years. The data shows that majority of the organisations have been involved in the joint venture mechanism between four to six years. This implies that the implementation of joint venture in property development in Malaysia is not considered new-fangled mechanism in this industry.

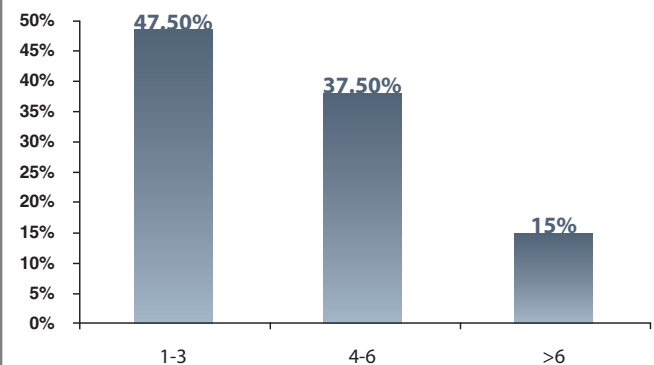
Figure 2: Period of Joint Venture involvement in Property Development



B. Analysis on Project Handled involving Joint Venture

Referring to the result of the survey show in Figure 3, 19 out of 40 respondents (47.5%) said that they have already handled four to six joint venture projects since their active involvement in joint venture property development. 37.5% of respondents stated that they have handled one to three projects which involved joint ventures. Only 15.0% of respondents have handled more than six joint venture property development projects after their involvement in joint venture property development. Thus,

Figure 3: Projects Handled involving Joint Venture in Property Development



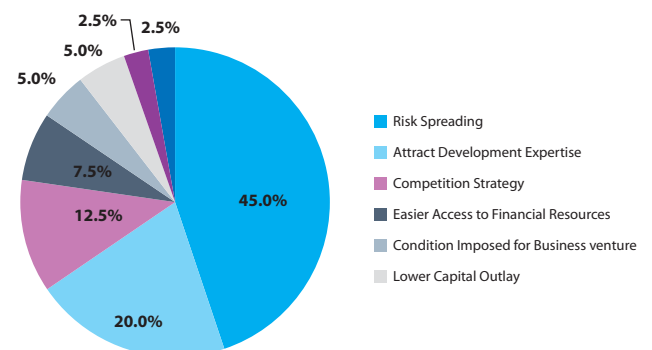
most of the respondents generally have four to six years of joint venture development knowledge and experience in property development. Therefore, this shows that the organisations were actively involved in development projects from the beginning of the participation in joint venture.

Section 2: Formation of Joint Venture

A. Analysis of Reason for Joint Venture

The preference for joint venture could be implied from Figure 4 which highlights the reasons cited by respondents in the survey for selecting joint venture mode of property development. The above data shows 45.0% of the respondents gave a reason for adopting joint venture as it tends to spread the risk in property development. In the case of a substantial property development project, a huge financial commitment over a fairly protracted period is the main concern for developers.

Figure 4: Reasons for Formation Joint Venture in Property Development



This implies that the majority of respondents seized the safe side by spreading the risks through joint venture mechanism.

Risk spreading is frequently quoted as a fundamental motivation for the formation of joint ventures. The similar rationale behind many ventures is the wish to lower and share with another party or parties the significant financial risks involved in capital intensive development projects.

Eight out of 40 respondents (20 %) stated that their reason for the formation of a joint venture is to attract

expertise in property development. Commonly, the client is assured that a full complement of talents is available for the development project, by reviewing the roster of joint venture partners.

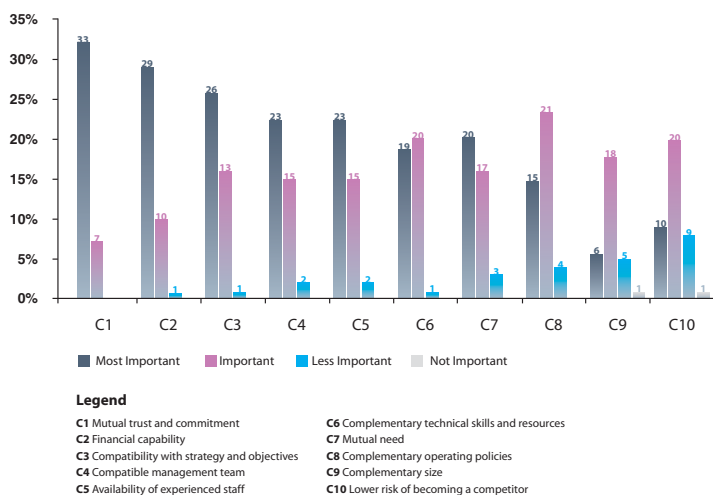
Another 12.5 % of respondents reasoned that the motivation for formation of joint venture is competitive strategy. A joint venture property development is desirable to developers as it enables them to establish economies of scale, customer reach, purchasing power and capital investment resources that are necessary to meet the strength of property market competition.

Another reason given by 7.5 % of respondents is easier access to financial resources. Besides, there are some least important reasons for formation of a joint venture including condition imposed for business ventures (5.0 %), lower capital outlay (5.0 %), expansion of business networks (2.5 %) and attract financial investment (2.5%).

B. Analysis of Criteria to be considered for Selection of Right Joint Venture Partner

Figure 5 illustrates the criteria to be considered by a joint venture partner for selection of the right partner in their joint venture property development. It was agreed by 33 respondents (82.5%) that the most important criteria of future joint venture partners is mutual trust and commitment toward their joint venture.

Figure 5: The Criteria to be considered for Selection of Right Joint Venture Partner



Financial capability is also desirable as favoured by 29 respondents (72.5%) which is the most important criteria influencing the choice of a partner. Next criterion as agreed by 65% of the respondents is compatibility in terms of strategy and objectives, one of the most important ingredients for a success joint venture.

The survey showed that 57.5% of respondents stated that compatible management team and the availability of experienced staff is the most important criteria in partner selection. As for the complementary technical skills and

resources, 50% of the respondents felt this is an important factor. 47.5% of respondents indicated that it is of most important and 2.5% of less important.

Twenty respondents stated that mutual need is another most important criterion, seventeen respondents cited that as an important criterion and only three respondents felt that it is less important. 52.5% of respondents felt that a complementary operating policy is an important criterion in partner selection, 37.5% with most important and 10% with less important.

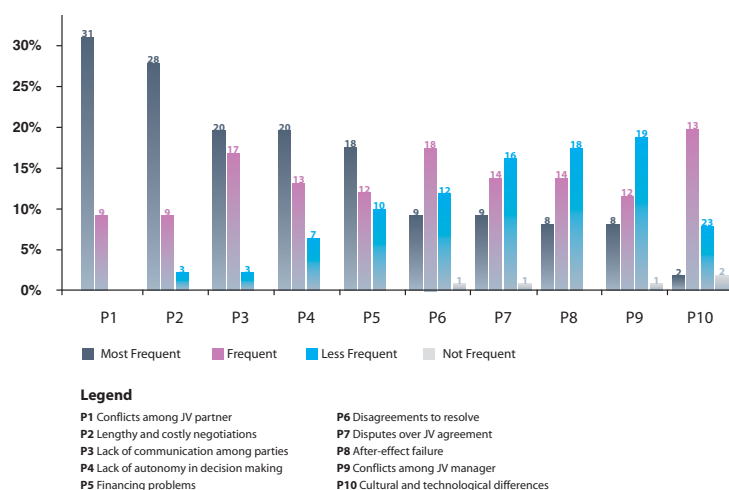
Complementary size was one of the most important criteria that was expressed by 15.0% of respondents, 45.0% as important; 12.5% less important and 2.5% of not important in the criterion of selecting a partner. It is indicated by 10 respondents that lower risk of becoming a competitor as the most important criteria, and 20 respondents have indicated it to be important criteria. There were nine respondents who cited it as less important criteria and only one respondent viewed it as not an important criteria.

All the criteria mentioned in the figure will be considered by the joint venture partners in selecting their future partner according to the condition of business venture.

Section 3: Problem involved with Joint Venture

As shown in Figure 6, 31 out of 40 respondents (77.5%) stated that the most frequent problem seriously encountered in a joint venture is conflicts between the joint venture partners. 70% of respondents stated that lengthy and costly negotiations will be the second most frequent problem.

Figure 6: Problem involved With Joint Venture



Twenty respondents indicated that the lack of communication among parties and the lack of autonomy in decision making are the most frequent problems involved in joint venture.

Eighteen respondents stated that financing problems is another most frequent problem encountered in joint venture, 12 respondents cited that as frequent problem

and 10 respondents stated that it is a less frequent problem.

According to the respondents, 45.0% rated disagreements to resolve disputes over joint venture agreement is a frequent problem, 22.5% with most frequent, 30.0% less frequent and 2.5% as not frequent.

The result of the survey did not show that the disputes over joint venture agreement to be a serious problem. Sixteen respondents considered it as a less frequent problem encountered in a joint venture property development.

The after-effect failure is another less frequent problem faced by respondents in their joint venture deals which was cited by 45.0% of respondents. 47.5% of respondents considered the conflicts among joint venture manager as less frequent problem in a property development joint venture. Next statement agreement by 57.5% of the respondents cited cultural and technological difference as the least frequent problem.

RESULTS OF THE RECOMMENDATION OF JOINT VENTURE IN PROPERTY DEVELOPMENT

There is increasingly a whole series of broader economic and political developments which are making joint ventures the key to opening markets in property development. It is therefore clear that joint ventures are growing in importance not only due to business strategies and considerations but also due to economic and political considerations of the country, especially in an emerging economy.

It is advisable that those investors wishing to embark on property development for the first time to consider joint venture property development as property development is a highly lucrative business with a long gestation period, albeit a risky one.

The onus, however, will be on the established property developers to be creative enough to negotiate such transactions with an increasing degree of sophistication and innovation than in the past. Thus, joint venture agreements can be more innovatively structured in order to convince partners that they have a win-win situation.

The key to surviving and prospering in today's ever-changing property development marketplace is to be flexible enough to provide competitive development projects regardless of the scope and geographical location of the project. Thus, the implementation of an intercultural management development model that can make a positive contribution to improving the management practices in a joint venture is recommended.

...there is a strong belief that joint ventures have a potential future because there will be increasing joint venture opportunities between established property developers and landowners.

Learning through joint ventures provides an important platform for achieving success in property development. It is envisioned that the prospects of property development joint ventures in the Malaysia are very bright and it is hoped that such joint ventures will become the norm of property development in the future.

Last but not least, joint ventures can be a great success and the win-win scenario can be a reality, if a joint venture is well managed. Understanding the success factors and perceiving the problems encountered in a joint venture is significantly important.

CONCLUSION

A joint venture is the commitment, for a certain period in the channelling of funds, facilities and services by two or more legally separate interests, to an enterprise for their mutual benefit. Joint ventures are generally formed when one parent company seeks another in order to provide needed resources or capabilities, to exploit potential synergy, or to share risks and rewards.

Nowadays, the property development sector has played an important role in contributing its share to the performance of the overall economy. Many development projects are getting so large that a single firm cannot bear the financial risk alone, hence leading to an increase in joint venture formation.

The reasons for forming a joint venture may be numerous and will, of course, differ in each individual case. But

essentially, they are about two aspects - risk and expertise. A property company may not have sufficient finances to enable it to complete the transaction and fund the development cost. Joint ventures offer opportunities for developers to spread the risks in property development and to obtain financing which they can not otherwise raise alone.

Developers may also form joint ventures with owners of land for development where the latter does not have the expertise to develop. This may

be the case where the landowner may be ignorant to the process of development and engage in non-property oriented activities.

In selecting a partner, however, the initial enthusiasm must be tempered with sober awareness of the need to interact compatibly throughout the term of the joint venture and to weather the day-to-day challenges of the operations and changing conditions of the partners. Joint venture implies selection of partners mostly on the basis of mutual trust and commitment, financial capability, compatibility with strategy and objectives, compatible management team and availability of experienced staff.

The structure of joint ventures, as of any corporate form, can be laid out in a number of ways. The format used,

however, should depend on the greatest effectiveness upon the analytical use to which it will be put. Structuring a joint venture, therefore, involves the same legal issues and planning for them.

The joint venture partners must be careful to adequately define the scope and purpose of the venture. Thus, it is advisable for the joint venture agreement to set forth in detail each joint venture partner's duties, obligations and responsibilities with regards to the joint venture. The joint venture parents' organisations must have an understanding of what each will contribute financially to the venture at the outset.

This research indicates that certain critical success factors must be met if the joint venture is to be successful in particular mutual trust, commitment, effective communication, clear understanding and strong leadership. It is recognised that nothing will change without due consideration from both partners.

Recently, the Malaysian property sector is undergoing a shake-out and a consolidation process is taking place whereby in the future, only a few large developers will dominate the market place. While the joint venture is not a new thing, the point to be made here is that it is a very relevant business strategy, which will become even more relevant in the future for property developers.

In recapitulation, joint ventures can and does work, but all partners must rethink their attitudes and work to make development projects more efficient, successful and free of conflict. As specialisation takes place and as development undertakings become more complex, there is a strong belief that joint ventures have a potential future because there will be increasing joint venture opportunities between established property developers and landowners.

In conclusion, most property development joint ventures will and should come to an end. A successful end and not a messy one! The best way to solve the "end game" of a joint venture in property development is to design and manage it well in the first place. ■

...certain critical success factors must be met if the joint venture is to be successful in particular mutual trust, commitment, effective communication, clear understanding and strong leadership.

REFERENCE

- Alan Tong, National Conference On Housing & Urban Governance Strategies For Successful Property Development, 20 & 21 July 2002, Petaling Jaya, Malaysia.
- Anderson, E. (1990). Two Firms, One Frontier: On assessing Joint Venture Performance, Sloan Management Review.
- Andrew A. L. Tan (1998). Property Development in Malaysia, Synergy Bo International, Kuala Lumpur.
- Andrew A.L.Tan (Mac 2002). JV Land & Property Development, Malaysia Property, Masineyer Media Services Sdn Bhd, MPH.
- Baird, I., Lyles, M. and Wharton, R. (1990). Attitudinal Differences between American and Chinese Managers Regarding Joint Ventures Management, Management International Review, Vol.30, pp. 53-68
- Beamish, P.W. (1988). Multinational Joint Ventures in Developing Countries, London, Routledge.
- Bettina, B. and Prange, C. (1998). International Joint Venture Management: Learning To Cooperate and Cooperating To Learn, John Wiley & Sons, Singapore.
- Buckley, Peter and Casson, M. (1989). A Theory of Cooperation in International Business in Peter Buckley, The Multinational Enterprise: Theory and Applications, Macmillan, London.
- Byrne, P. and Cadman, D. (1984). Risk and the Process of Property Development, E & F.N Spoon Ltd.
- Cadman, D. (1996). Property Development: Appraisal and Finance, Macmillan, London.
- Davidson, W. (1982). Global Strategic Management, John Wiley & Son, New York.
- Dinner, D. R. (1996). Joint Ventures for Architects and Engineers, McGraw-Hill, USA.
- Downs, A. (1991). Principles of Real Estate Management, Institute of Real Estate Management.
- Edgar, H. & Adam, W. (1996). Joint Ventures, Jordan Publishing Limited.
- Eiteman, D. K., (1990). American Executives' Perceptions of Negotiating Joint ventures with the peoples's Republic of China: Lessons Learned, Columbia Journal of World Business, Vol.25, pp. 59-67.
- Faulkner, D. (1995). International Strategic Alliances Compete, McGraw-Hill, England.
- Fishman, M. and Levinthal, D.A. (1991). Honeymoons and the Liability a Adolescence: A New Perspective on Duration Dependence in Social ant Organizational Relationships, Academy of Management Review.
- Fong, K.C. (1985). Construction Joint Ventures In Singapore, Butterwoths. Singapore.
- Franko, L.G. (1971). Joint Venture Survival in Multinational Corporations, Praeger, New York.

- Geringer, J.M. and Hebert, L. (1989). *Control and Performance of International Trust in Group Processes*, John Wiley & Son, New York.
- Glaister, K. W., (1995). Dimensions of Control in UK International Joint Ventures, *British Journal of Management*, Vol.6, No.2, pp. 77-96
- Goodkin, L. M. (1974). *When Real Estate & Home Building Become Business: Mergers, Acquisitions & Joint Ventures*, Cahness Books, Boston.
- Hall, R. D. (1984). *The International Joint Venture*, Praeger, New York.
- Harrigan, K.R. (1984). *Joint Ventures & Global Strategies*, Columbia Journal 01, World Business.
- Harrigan, K. R. (1985). *Strategies for Joint Venture Success*, Macmillan, New York.
- Harrigan, K R. (1986). *Managing For Joint Venture Success*, Lexington Books, New York.
- Harrigan, K.R. (1987). *Why Joint Ventures Fail*, Euro-Asia Business Review.
- Hennart, J. F. (1988). A Transaction Costs Theory of Equity Joint Ventures, *Strategic Management Journal* 9.
- Hewitt, I. (2001). *Joint Ventures*, Sweet & Maxwell, London.
- Isaac, D. (1996). *Property Finance*, Macmillan, London.
- Inkpen, A.C. (1995). *The Management of International Joint Ventures Organizational Learning Perspective*, Routledge, New York.
- Janger, A.R. (1980). *Organization of international Joint Ventures*, The Conferen Board, New York.
- John D.C., Robert F. C. & Hartz, S. (1998). *The Handbook of Joint Venturing*, Dow Jones & Company, Inc.
- Killing, P.J. (1983a). *How To make A global Joint Venture Work*, Praeger, New York.
- Killings P.J. (1983b). *Strategies for Joint Venture Success*, Praeger, New York
- Kogut. B. (1988). *Joint Ventures: Theoretical & Empirical Perspectives Strategic Management Journal*, Vol 9.
- Lecraw, D.J. (1983). *Strategies For Joint Ventures Success*, Praeger, New York
- Linklaters & Paines with Christopher Nightingale Solicitor (1990). *Joint Venture*, Longman, London.
- Lynch and Porter, R. (1990). *The Practical Guide to Joint Ventures & Coperates Alliances*, John Wiley & Son, New York.
- M. Cauley de la Sierra (1995). *Managing Global Alliances Successful Collaboration*, Addison-Wesley, Britain.
- Madhok, A. (1995). *Revisiting Multinational Firms' Tolerance For Joint Ventures : A Trust-based Approach*, *Journal of International of Business Studies*, Vol.26(1)
- Matthews, C. (1999). *Managing international Joint Ventures: The Route to Globalizing Your Business*, Kogan Page, UK.
- McMahan, J. (1976). *Property Development: Effective Decision Making in Uncertain Times*, McGraw-Hill, USA.
- Mitchell W.B. and Robert F.C. (1992). *Construction Joint Ventures Forms and Practice Guide*, John Wiley & Sons, USA.
- Nonaka, I. (1994). *A Dynamic Theory of Organizational Knowledge Creation*, *Organization Science*, Vol. 5.
- Parkhe, A. (1993). *Strategic Alliance Structuring : A Game Theory an Transaction Cost Examination of interim Co-operation*, *Academy of Management Journal*, Vol.36 No.4.
- Pfeffer, J. & Nowak, P. (1976). *Joint Ventures and Interorganisational Interdependence*, *Administrative Science Quarterly*, September 1976, Volume 21.
- Pfeffer, J. & Nowak, P. (1994). *Joint Ventures and Interorganisational Interdependence*, Jordan Publishing Limited.
- Salleh Buang (2001). *Joint Ventures in Land Development: Minimising Risks, Maximising Returns*, 13th National Real Estate Convention 9th & 10th October 2001.
- Shenkar, O., and Ronen, S. (1987). *Structure and Importance of Work Goals among Managers in the Peoples's Republic of China*, *Academy of Management Journal*, Vol.30, pp. 564-576.
- Shenkar, O., and Zeira, Y. (1987). *Human Resource Management in International Joint Ventures: Directions for Research*, *Academy of Management Review*, Vol.12, No.3, pp. 546-557
- Sayer, S. (1999). *Negotiating and Structuring International Joint Venture Agreements*, Partner at Richards Butler.
- Syms, P. (2002). *Land Development & Design*, Blackwell Publishing, USA.
- Tomlinson, J. W. C., (1970). *The Joint Venture Process in International Business: India and Pakistan*, Cambridge Mass, M.I.T Press.
- Vernon, R. (1983). *Organizational and Institutional Responses to International Risk: Managing international Risk*, Cambridge University Press, Cambridge.
- Walters, B. A. Peters and Dess, G.G. (1994). *Strategic Alliances Joint Ventures Making Them Work*, *Business Horizons*, 37(4), July-August.
- Weick, K.E. (1995). *Sensemaking in Organizafions*, Sage, London.
- Winston Paul Wong, National Seminar (Property 2000): "Legal Consideration for Mega Joint Venture Land Development Project", 22nd & 23rd August 2000.

Potensi Penjanaan Tenaga Ombak Di Malaysia

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Pembangunan sesebuah negara adalah bergantung kepada pengurusan tenaga yang cekap dan berkesan. Tenaga ombak merupakan satu tenaga keterbaharuan yang mesra alam dan mudah diperolehi di lautan. Faktor kejayaan kepada perlaksanaan tenaga ombak mempunyai kaitan dengan polisi, ekonomi dan persekitaran sesebuah negara. Sistem Maklumat Geografi (GIS) mempunyai keupayaan untuk melakukan analisis spatial yang menghasilkan keputusan yang tepat. Kajian ini adalah menjurus kepada lokasi dan potensi Malaysia untuk menjana tenaga ombak. Kajian dilakukan dengan menggunakan data dari tahun 1992 hingga 2007.

Hasil daripada kajian menunjukkan bahawa perairan di Kelantan, Terengganu, Pahang, Sarawak dan Sabah mempunyai potensi yang besar untuk dijana tenaga ombak di Malaysia.

Purata tenaga yang boleh dijana adalah sekitar 65kW/m hingga 110kW/m. Laut China

Selatan berpotensi untuk menjana tenaga kerana ianya merupakan laut terbuka yang menerima jumlah angin dan arus yang tinggi sepanjang tahun. Jumlah tenaga sebenar yang boleh dijana bergantung kepada alat penukar kuasa yang digunakan.



PENGENALAN

PERKEMBANGAN SESEBUAH negara mempunyai kaitan yang rapat dengan penggunaan tenaga. Tenaga diperlukan untuk menggerakkan ekonomi sesebuah negara dan di samping itu ianya perlu memenuhi ciri-ciri tenaga yang mesra alam. Pembangunan sesebuah negara bukan sahaja bergantung pada kelestarian pembangunan sumber tenaga sahaja tetapi bergantung juga pada kebersihan, tahap keselamatan dan juga keupayaan tenaga keterbaharuannya. Tidak dapat dinafikan pada masa hadapan dunia masih memerlukan minyak mentah kerana pembangunan teknologi dan inovasi masih bergantung kepadanya. Kebergantungan terhadap sesuatu sumber tenaga tidak dapat menjamin kelestarian pembangunan sesebuah negara. Tenaga keterbaharuan (RE) adalah alternatif terbaik di mana ianya kurang memberikan kesan dan impak kepada alam sekitar. Kajian berkenaan dengan ekonomi dan persekitaran merupakan antara elemen yang perlu dititik beratkan bagi menjamin kesempurnaan pelaksanaan tenaga keterbaharuan (Kaltschmitt et al., 2007).

Pembinaan loji kuasa tenaga ombak membantu di dalam kestabilan penjanaan kuasa dunia.

Menurut Nelson (2009), bumi mempunyai had keupayaan yang terhad dari segi populasi, jumlah air bersih, bahan api dan galian. Untuk berubah ke aras kelestarian kehidupan, tenaga keterbaharuan merupakan alternatif yang sangat penting untuk diterokai dan digunakan. Beberapa cadangan yang dapat dilakukan bagi merealisasikan tenaga keterbaharuan bagi tempoh 2007 hingga 2020 adalah:

- i. Melaksanakan pemuliharaan dan kecekapan tenaga.
- ii. Meningkatkan penggunaan tenaga keterbaharuan.

- iii. Mengurangkan pergantungan terhadap minyak dan gas asli secara berperingkat.
- iv. Menggunakan arang batu (memberikan perhatian kepada karbon dioksida).
- v. Memperkenalkan insentif dan penalti kepada perkara i dan ii.

Maulud et al. (2008a) mengatakan bahawa logi tenaga ombak yang berskala kecil mempunyai impak yang sedikit terhadap alam sekitar. Kesan ini perlulah diambil kira supaya pembekalan tenaga ombak dapat dilakukan dengan berkesan.

Penggunaan Sistem Maklumat Geografi (GIS) untuk mengenal pasti lokasi tenaga keterbaharuan merupakan kaedah yang boleh digunakan. GIS mempunyai keupayaan untuk menganalisis pelbagai data spatial bagi mendapatkan keputusan dengan cepat dan tepat. Pangkalan data spatial dapat menghubungkan segala informasi dengan lebih tersusun dan bersepadu. Model data marin GIS yang terdiri daripada titik, garisan dan poligon dapat menerangkan ciri-ciri objek dengan lebih jelas (Wright et al., 2007).

Mengikut laporan World Energy Outlook 2005 (IEA-OES, 2005), ia memberi satu jangkaan tentang pembekalan dan permintaan tenaga sedunia bagi setiap jenis bahan api apabila menjelang tahun 2030. Dalam laporan yang sama, permintaan terhadap tenaga akan meningkat lebih daripada 50.0% berbanding dengan masa sekarang. 66.7% daripada peningkatan tersebut adalah daripada negara membangun. Permintaan terhadap bahan api fosil akan terus meningkat. Sebagai contoh, permintaan tahunan terhadap minyak akan meningkat sebanyak 1.4%, permintaan tahunan terhadap gas pula akan meningkat sebanyak 2.1% dan permintaan terhadap arang batu juga turut meningkat 1.4% setiap tahun. Pelepasan gas karbon dioksida sedunia akan meningkat 1.6% setiap tahun dari tahun 2003 ke tahun 2030. Lebih kurang 70.0% peningkatan pengeluaran gas karbon dioksida adalah daripada negara membangun. Sektor penjanaan kuasa elektrik akan menyumbang 50.0% daripada jumlah pengeluaran gas karbon sedunia. Data

tersebut menggambarkan kebergantungan masyarakat sedunia terhadap bahan api fosil serta masalah pencemaran alam dan pemanasan sedunia akan menjadi semakin serius sekiranya polisi terhadap penggunaan tenaga sedunia tidak berubah. Menurut Darus et al. (2009), Malaysia telah menggariskan tiga elemen utama di dalam Polisi Tenaga Malaysia iaitu pembekalan tenaga, penggunaan tenaga dan persekitaran tenaga.

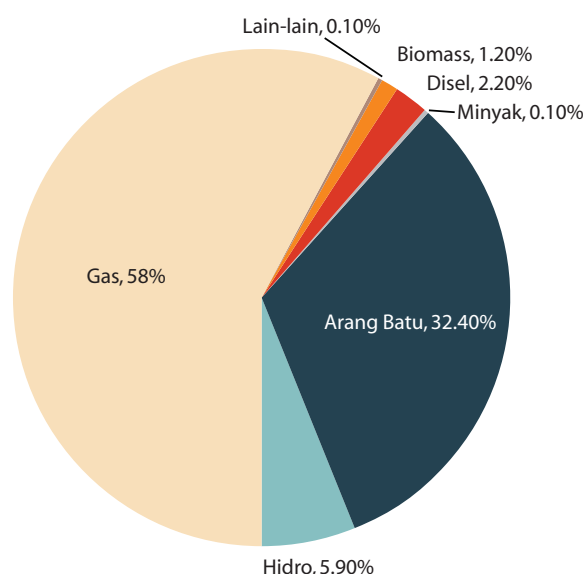
Bermula dari Rancangan Malaysia Kelapan (RMKe-8), tenaga boleh diperbaharui dikaji kesesuaiannya sebagai pembekal bahan tenaga kelima. Ini adalah bertujuan untuk mengurangkan kebergantungan kepada sumber petroleum dan menjadikan tenaga boleh diperbaharui sebagai pembekal tenaga elektrik yang utama di Malaysia. Namun, pelaksanaan sumber tenaga boleh diperbaharui di Malaysia tertumpu kepada tenaga biomas, biogas, tenaga solar dan mini-hidro sahaja. Dengan itu, kesesuaian tenaga marin sebagai tenaga boleh diperbaharui di Malaysia harus dikaji memandangkan potensinya yang tinggi. Ini adalah berikutan keberkesanan penjanaan tenaga marin telah terbukti di New Zealand.

Dalam Rancangan Malaysia Kesembilan (RMKe-9), sektor tenaga akan terus berperanan penting dalam meningkatkan pertumbuhan ekonomi negara. Sehubungan itu, sumber bahan api akan dipelbagaikan melalui penerokaan secara meluas dalam bidang tenaga boleh diperbaharui. Penekanan akan diberikan bagi mengurangkan kebergantungan ke atas produk petroleum dengan meningkatkan penggunaan bahan api alternatif. Kerajaan Malaysia telah melancarkan Small Renewable Energy Projects (SREP) pada 11 Mei 2001 bagi meningkatkan penggunaan sumber tenaga diperbaharui di dalam penjanaan elektrik (Suruhanjaya Tenaga, 2009a). Suruhanjaya tenaga berfungsi sebagai urusetia atau pusat setempat yang bertanggungjawab untuk melaksana dan menggalakkan pembangunan SREP. Suruhanjaya juga menyelaras proses permohonan insentif bagi projek-projek berkaitan tenaga diperbaharui dan juga

kecekapan tenaga bersama Pusat Tenaga Malaysia (PTM) dan Lembaga Kemajuan Perindustrian Malaysia (MIDA). Kementerian Tenaga, Teknologi Hijau dan Air Malaysia (KeTTHA) sedang dalam proses merangka satu mekanisme tarif jualan elektrik berasaskan sumber-sumber tenaga diperbaharui di mana kadar tarif premium akan dapat dinikmati oleh pengusaha projek tenaga diperbaharui. Kejayaan sesuatu program berkenaan tenaga keterbaharuan adalah bergantung kepada sokongan dari semua pihak. Antara faktor yang menyebabkan kemajuan projek SREP yang dijalankan oleh suruhanjaya tenaga agak kurang menyerlah adalah seperti kurangnya sokongan daripada Kerajaan Negeri, pembiayaan projek, persaingan penggunaan bahan mentah dan juga harga jualan tenaga elektrik (tarif) (Suruhanjaya Tenaga, 2008).

Di Malaysia, dengan pertumbuhan ekonomi secara berterusan serta perkembangan sektor perindustrian dan sosial, permintaan terhadap bekalan kuasa elektrik juga sentiasa meningkat. Menurut Suruhanjaya Tenaga (2009b), pada tahun 2009, 58.0% kuasa elektrik dijana dengan penggunaan gas asli, 32.4% dengan arang batu, 5.9% secara hidroelektrik, 2.2% dengan diesel, 1.2% dengan biomass, 0.1% dengan minyak dan 0.1% dengan bahan api lain.

Rajah 1.0: Penjanaan Elektrik di Malaysia pada Tahun 2009



Sumber : Suruhanjaya Tenaga (2009b)

Kini banyak negara membuat kajian yang menyeluruh untuk menilai dan membangunkan tenaga ombak bagi membantu mencari tenaga alternatif yang boleh diguna pakai. Ombak mempunyai kuasa yang tidak terhad.

Secara ringkasnya, sebanyak 92.7% bekalan elektrik yang digunakan adalah dihasilkan dengan sumber tenaga yang tidak boleh diperbaharui. Oleh yang demikian, kebergantungan terhadap sumber tenaga tersebut adalah tidak terjamin untuk jangka masa panjang. Kos bahan mentah sentiasa meningkat tahun demi tahun berbanding 10 tahun yang lalu. Keadaan politik dan keselamatan di negara-negara pengeluar minyak tidak stabil juga akan menyebabkan bekalan berkurangan dan seterusnya meningkat kos penjanaan kuasa elektrik. Selain itu, hasil sumber tenaga fosil juga menghasilkan gas yang mencemarkan alam sekitar seperti karbon dioksida, sulfur dioksida dan nitrogen oksida.

Tenaga Nasional Berhad (TNB) telah mula melihat kepada kemampuan tenaga keterbaharuan bagi menampung jumlah tenaga pada masa hadapan. Melalui unjuran yang dilakukan, TNB menjangkakan akan mula menjana tenaga keterbaharuan sebanyak 2013 MWj pada tahun 2012 dan meningkat sebanyak 5385 MWj pada tahun 2015 dan menjangkakan akan menjana 11244 MWj tenaga keterbaharuan pada tahun 2020. Jadual 1 menunjukkan unjuran yang dirancang oleh TNB terhadap tenaga keterbaharuan di Malaysia.

Jadual 1: Unjuran Penjanaan Tenaga Keterbaharuan Di Malaysia

Tahun	Kapasiti RE di Semenanjung Malaysia (MW)	Penjanaan Kuasa RE di Semenanjung Malaysia (MWj)	Kapasiti RE di Sabah (MW)	Penjanaan Kuasa RE di Sabah (MWj)	Jumlah Kapasiti (MW)	Jumlah Penjanaan Kuasa RE (GWj)
2012	274	1,498,758	91	514,262	365	2,013
2015	758	4,109,043	227	1,275,617	985	5,385
2020	1596	8,497,535	484	2,746,265	2080	11,244

Sumber: *Suruhanjaya Tenaga (2009)*

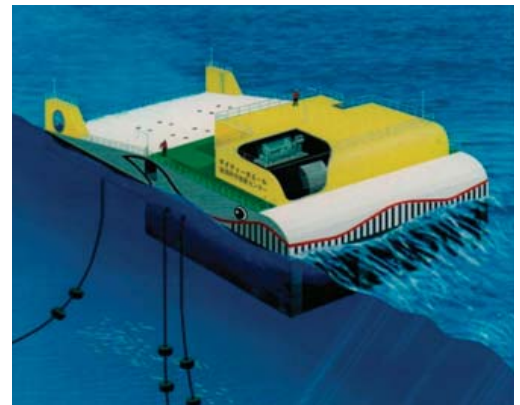
TENAGA OMBAK

Pengurangan pancaran karbon dioksida yang semakin mendesak menyebabkan kerajaan dan dunia khususnya memberikan kelebihan kepada penggunaan tenaga keterbaharuan. Pembinaan loji kuasa tenaga ombak membantu di dalam kestabilan penjanaan kuasa dunia. Kini banyak negara membuat kajian yang menyeluruh untuk menilai dan membangunkan tenaga ombak bagi membantu mencari tenaga alternatif yang boleh diguna pakai. Ombak mempunyai kuasa yang tidak terhad. Anggaran tenaga yang mampu dijana oleh tenaga ombak adalah sekitar 10 juta tera watt/jam setiap tahun (Wengenmayr dan Bührke, 2008).

Jepun melalui JAMSTEC pada tahun 1987 telah melakukan pelbagai kajian yang mendalam

berkenaan dengan tenaga ombak. Rajah 2 menunjukkan antara produk yang dihasilkan iaitu "Mighty Whale". Ia merupakan alat kuasa yang terapung dan mempunyai turbin penukar kuasa kepada tenaga elektrik. Ia akan menyerap segala tenaga yang datang dari ombak dan akan menghasilkan satu kawasan air yang tenang di belakangnya. Kawasan ini amat berguna terutama untuk aktiviti perikanan. Prototaip yang dihasilkan telah siap pada Mei 1998 dan telah selamat diuji di laut lepas pada September 1998 (Charlier dan Finkl, 2009). Potensi tenaga ombak adalah berkadar secara terus dengan tempoh ombak dan juga purata bagi ketinggian ombak pada masa-masa yang tertentu (Özger et al., 2004).

Rajah 2: Alat penjana tenaga ombak "Mighty Whale"



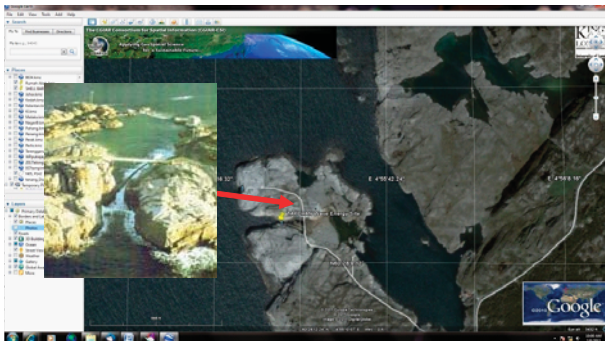
Sumber: <http://www.dpenergy.com/data1/marine/images/wavephotos/mightywhales.jpg> atau www.jamstec.go.jp (2011)

ASAS TEKNOLOGI UNTUK PENJANAAN TENAGA OMBAK

Penemuan sumber tenaga yang berasaskan kepada ombak telah ditemui sejak 20 tahun yang lalu. Pada tahun 1986, satu loji penjanaan tenaga ombak telah siap dibina di Norway. Ianya telah beroperasi selama hampir 12 tahun. Loji penjanaan tersebut telah dibina di Pulau Toftehallen, Bergen. Ianya dikenali sebagai TAPCHAN (TAPered CHANnel) yang menerima air terus daripada laut yang mampu menerima ombak yang kuat. Saiz loji tersebut adalah 60m lebar yang menerima ombak dan sekitar enam hingga tujuh meter dalam. Ketinggian kolam takungan tersebut adalah tiga meter dari aras laut. Kuasa yang mampu dijana oleh TAPCHAN adalah sekitar 350kW maksimum dan sekitar GWh setahun (Wengenmayr dan Bührke, 2008). Penghasilan tenaga dihasilkan dengan menakung air laut dan melepaskannya ke dalam kolam takungan. Tenaga yang dihasilkan ditukarkan kepada tenaga elektrik dengan menggunakan

generator. Rajah 3 menunjukkan contoh sistem TAPCHAN yang dibangunkan.

Rajah 3: Sistem Penjanaan Tenaga Ombak TAPCHAN



Sumber: <http://www.sintef.no/Home/Information-and-Communication-Technology-ICT/Applied-Mathematics/Research-Areas/Simulation/Projects/Wave-power-plant/>, (2011)

KUASA YANG BOLEH DIJANA DARIPADA OMBAK

Teori ombak linear menganggap bahawa pergerakan air melepasi satu titik adalah berbentuk sinus. Kuasa yang terkandung dalam ombak boleh dinyatakan dalam bentuk panjang ombak (kW/m). Ombak yang besar mengandungi lebih kuasa bagi setiap meter persegi. Di kawasan laut dalam di mana kedalaman air laut lebih besar daripada panjang ombak, formula aliran tenaga ombak adalah seperti berikut (Özger et al., 2004):

Formula penjanaan tenaga ombak merupakan aplikasi tenaga kinetik:

$$P = \frac{\rho g^2}{32\pi} H_{mo}^2 T \approx \left(1.0 \frac{kW}{m^3 s} \right) H_{mo}^2 T \quad (1)$$

di mana,

P = fluks tenaga ombak (kW/m)

H_{mo} = ketinggian ombak (meter)

T = tempoh ombak (saat)

ρ = ketumpatan air (kg/m³)

g = pecutan graviti (m²/s)

TEKNOLOGI PENUKAR KUASA OMBAK

Kebiasaannya seperti yang dipraktikkan di negara luar, terdapat dua kaedah yang boleh digunakan bagi menjana tenaga daripada ombak iaitu sistem pesisir pantai dan juga sistem lepas pantai. Bagi sistem yang digunakan di kawasan pantai, penggunaan alat penukar kuasa tepi pantai boleh digunakan. Bagi sistem yang digunakan di kawasan laut pula, kedalaman air seharusnya melebihi 40 meter bagi penghasilan tenaga yang optimum. Antara alat yang digunakan untuk menjanakan tenaga ombak adalah seperti Penukar Kuasa Pelamis.

Penukar Kuasa Tepi Pantai

Alat yang direka bagi mendapatkan tenaga secara langsung dari ombak ini juga telah banyak digunakan di negara-negara luar seperti Jepun, Scotland dan United Kingdom. Rajah 4 menunjukkan cara alat ini beroperasi, di mana ianya dipasang dan dibina di tepi pantai, separa tenggelam serta mempunyai ruang kosong di bahagian tengahnya yang terbuka kepada garis air laut. Ombak yang memasuki ruang udara ini akan melalui sebuah turbin. Tenaga keupayaan yang terhasil daripada ombak akan memutarakan turbin tersebut. Keadaan ini akan berterusan dengan tarikan semula ombak. Alat ini mampu menghasilkan tenaga sehingga 500 kilowatt.

Rajah 4: Alat Penukar Kuasa Tepi Pantai Beroperasi



Sumber : Wengenmayr dan Bührke (2008)

Dengan menggunakan GIS, analisis spatial penentuan lokasi penjanaan tenaga marin dapat dilakukan dan mengenal pasti lokasi yang bersesuaian untuk menjanakan tenaga marin di Malaysia.

Penukar Kuasa Pelamis

Alat Penukar Kuasa Pelamis ini telah dikomersialkan di Portugal pada tahun 2007. Alat ini berfungsi untuk menjana tenaga elektrik dengan menggunakan pergerakan ombak di tengah lautan. Bahagian struktur pada alat ini bergerak mengikut pergerakan ombak lautan di mana setiap gerakan melawan bahagian menggunakan minyak tertekan untuk mengerakkan ram hidraulik dan motor hidraulik. Pelamis direka menggunakan konsep pengecilan alat ombak yang direka untuk bertahan lama di lautan yang bergelora. Alat penukar kuasa ini ditempatkan di kawasan laut dalam bagi mendapatkan tindak balas yang sesuai. Ianya direka secara memanjang bagi meningkatkan lagi kecekapannya. Penukar kuasa pelamis ini menggunakan kaedah hidraulik bagi menjana tenaga ombak kepada tenaga elektrik. Alat penukar kuasa yang berkemampuan untuk menjanakan tenaga sehingga 2.25 megawatt ini mempunyai tiga mesin di mana setiap satu mesin berupaya menjana tenaga elektrik sehingga 750 kilowatt. Alat ini ditambah secara berserenjang dengan arah ombak. Ia direka untuk digunakan di tengah laut di mana di kawasan ini gelombang ombak mempunyai magnitud yang lebih berkuasa berbanding di persisiran pantai. Rajah 5 menunjukkan contoh alat penukar kuasa Pelamis.

Rajah 5: Alat Penukar Kuasa Pelamis yang digunakan untuk menghasilkan tenaga elektrik



Sumber : Wengenmayr dan Bührke, 2008

KELEBIHAN DAN KEKURANGAN TENAGA KETERBAHARUAN

Menurut Nelson (2009) dan Cruz (2008), beberapa kelebihan dan kekurangan wujud apabila menggunakan tenaga keterbaharuan iaitu:

Kelebihan:

- Sistem tenaga ombak boleh dijadikan sebagai pelindung pantai.
- Menghasilkan satu kawasan yang tenang di sekitar sistem tenaga ombak bagi pembangunan komersial dan rekreasi.
- Jangka hayat loji yang lebih lama.
- Tidak mendatangkan pencemaran dan merupakan tenaga yang tidak terhad.
- Merupakan tenaga yang mesra alam dan wujud di mana sahaja.

Kekurangan:

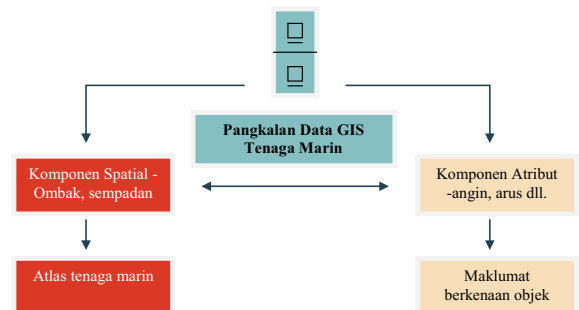
- Kos pembinaan yang tinggi bagi permulaan pelaksanaan
- Tenaga ombak merupakan sumber tenaga yang bersela.

- Tenaga ombak lautan memerlukan sistem kabel pemindahan tenaga yang panjang untuk menyalurkan tenaga ke daratan.
- Mempunyai kekangan dengan faktor navigator pelayaran, perikanan dan kawasan sensitif.

SISTEM MAKLUMAT GEOGRAFI (GIS)

Sistem Maklumat Geografi (GIS) terdiri daripada kombinasi elemen spatial dan atribut, individu dan kaedah-kaedah analisis dengan dibantu oleh sistem komputer untuk memproses, memanipulasi dan melakukan analisis terhadap data yang mempunyai sistem rujukan yang khusus. Menurut Burrough (1987), GIS adalah satu set alatan yang digunakan untuk mengumpul, menyimpan, mendapatkan semula, transformasi dan memaparkan data spatial dari dunia sebenar ke bentuk yang mudah difahami. Bernhardsen (1999) menyatakan data yang ada di dalam sistem GIS mestilah mempunyai sistem rujukan dan menerangkan tentang lokasi sesuatu objek melalui sistem koordinat di sesebuah negara. Shekhar dan Chawla (2003) dan Antenucci et al. (1991) menerangkan tentang pangkalan data GIS dibahagikan kepada dua iaitu data spatial dan juga atribut dan mempunyai kebolehan untuk menyimpan banyak data di dalam satu-satu pangkalan data GIS. Rajah 6 menunjukkan gambaran pangkalan data tenaga marin.

Rajah 6: Pangkalan data GIS Tenaga Marin

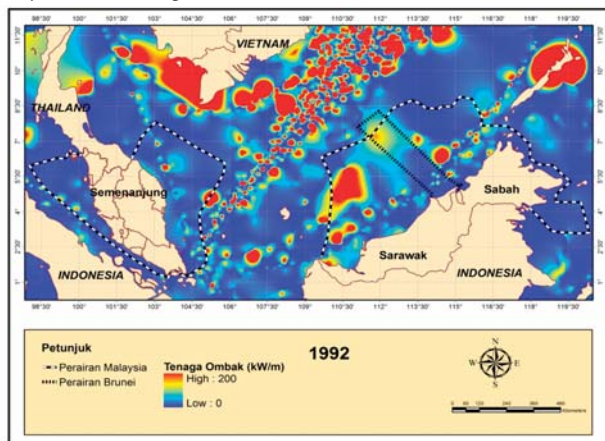


Sumber : Maulud et al (2008a)

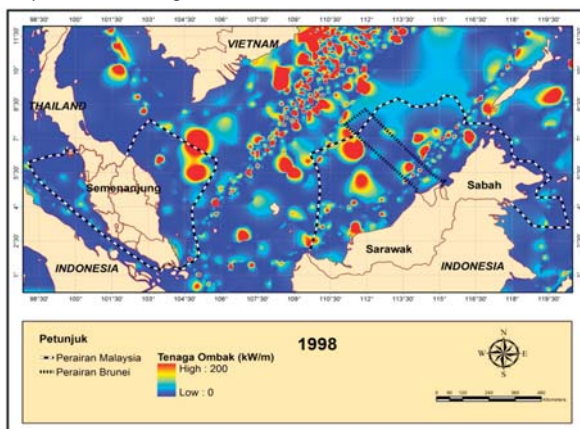
DATA KAJIAN

Kajian dijalankan berdasarkan kepada data berkenaan ombak yang diperolehi daripada Jabatan Meteorologi Malaysia (JMM). Data ini merangkumi maklumat seperti koordinat lokasi cerapan, tarikh cerapan, arah angin, kelajuan angin, tempoh masa ombak, ketumpatan air, ketinggian ombak, arah alunan ombak, tempoh masa alunan ombak dan ketinggian alunan ombak. Kesemua data ini dianalisis dengan menggunakan perisian ArcGIS 9.3 untuk mendapatkan hasil lokasi yang berpotensi untuk menjana tenaga ombak.

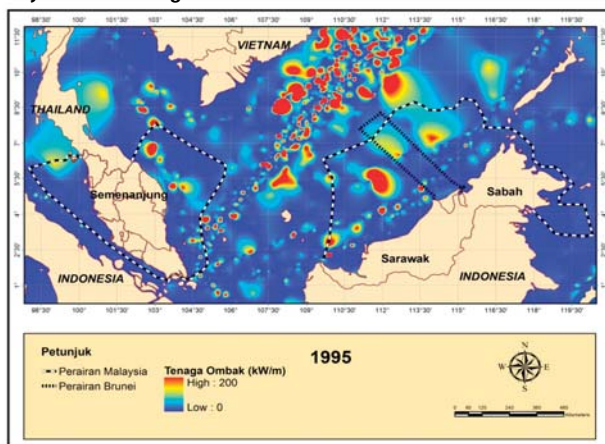
Rajah 7: Peta Tenaga Marin Tahun 1992



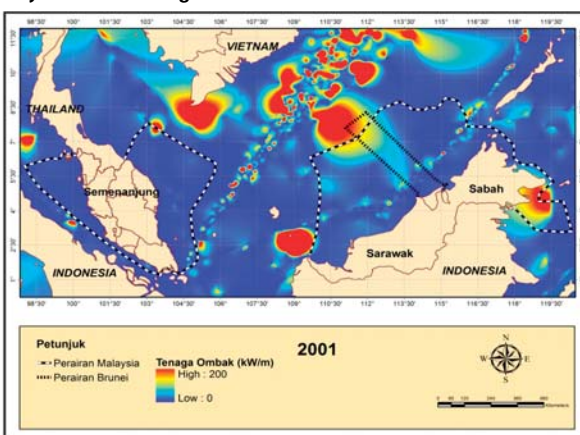
Rajah 9: Peta Tenaga Marin Tahun 1998



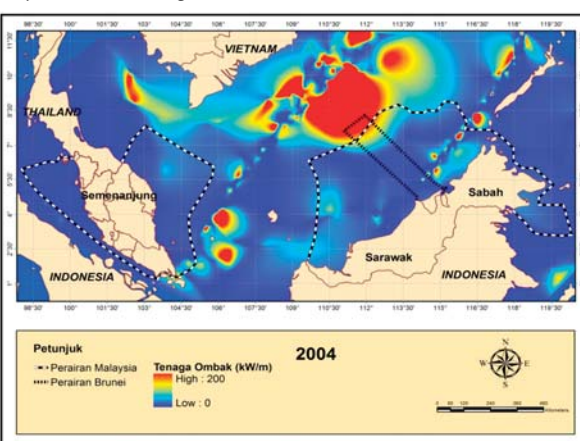
Rajah 8: Peta Tenaga Marin Tahun 1995



Rajah 10: Peta Tenaga Marin Tahun 2001



Rajah 11: Peta Tenaga Marin Tahun 2004

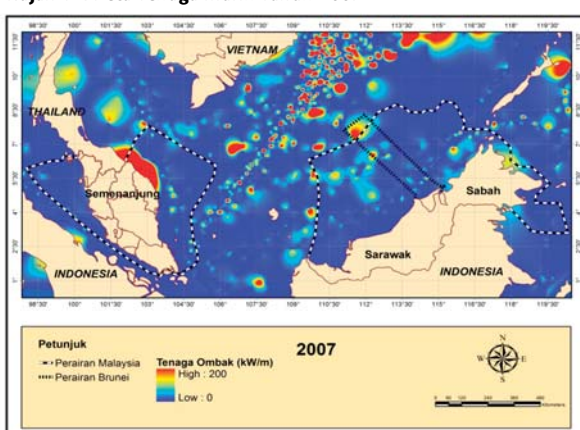


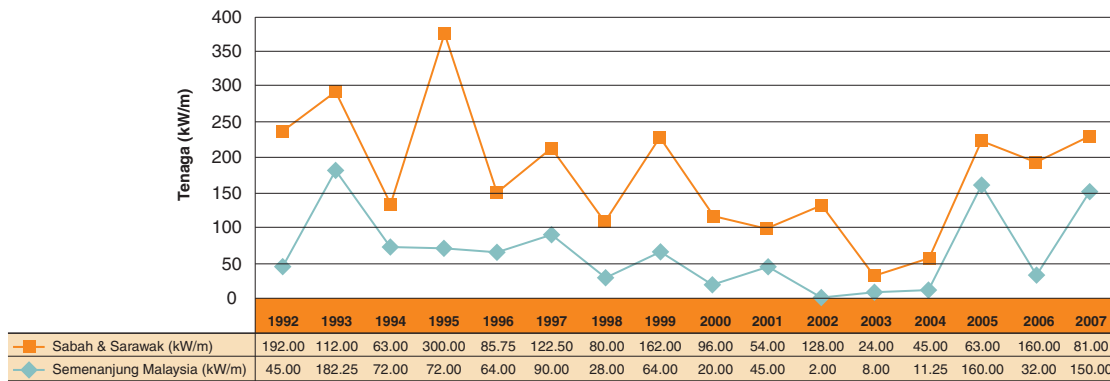
KEPUTUSAN DAN PERBINCANGAN

Berdasarkan kepada analisis spatial yang dijalankan, Rajah 7 hingga Rajah 12 menunjukkan contoh paparan peta tenaga ombak yang boleh dijana di perairan Malaysia. Gambaran keseluruhannya adalah, potensi tenaga yang boleh dijana adalah stabil. Ini dapat digambarkan melalui hasil analisis spatial yang dilakukan di kawasan perairan Malaysia. Keadaan ini terjadi adalah disebabkan pengaruh angin dan ombak yang kuat di Laut China Selatan yang memberikan impak yang tinggi kepada potensi tenaga ombak berbanding di Selat Melaka.

Untuk merealisasikan tenaga ombak di Malaysia, kajian yang khusus tentang penjana tenaga ombak perlu dilakukan dengan mendalam bagi mendapatkan jumlah tenaga yang semaksima mungkin.

Rajah 12: Peta Tenaga Marin Tahun 2007



Rajah 13: Tenaga Ombak Tertinggi dari Tahun 1992 hingga 2007

Jumlah tenaga maksima yang boleh dijana di Malaysia adalah seperti di Jadual 2. Lokasi terbaik untuk menjana tenaga marin di Semenanjung Malaysia adalah di 04°12'U 104°06'T dengan nilai sebanyak 182.25 kW/m. Lokasi berpotensi di Sabah dan Sarawak adalah di 02°18'U 109°54'T dengan nilai 300 kW/m. Lokasi yang konsisten menjana tenaga ombak di Semenanjung Malaysia adalah di sekitar Laut China Selatan di mana ia merupakan lokasi laut yang terbuka di mana tiupan dan ombak yang diperolehi adalah lebih kuat berbanding di kawasan Selat Melaka. Laut di Selat Melaka agak terlindung

Jadual 2: Penjanaan Tenaga Ombak Tertinggi

Tahun	Semenanjung Malaysia		Perairan Sabah dan Sarawak	
	Lokasi	Tenaga tertinggi (kW/m)	Lokasi	Tenaga tertinggi (kW/m)
1992	05°54'U 103°24'T	45.00	03°18'U 113°00'T	192.00
1993	04°12'U 104°06'T	182.25	04°18'U 112°36'T	112.00
1994	06°42'U 103°06'T	72.00	03°24'U 112°18'T	63.00
1995	05°12'U 103°42'T	72.00	02°18'U 109°54'T	300.00
	06°48'U 103°00'T	72.00		
1996	05°30'U 105°00'T	64.00	04°42'U 113°42'T	85.75
1997	05°30'U 105°00'T	90.00	04°48'U 111°48'T	122.50
1998	06°00'U 103°30'T	28.00	04°18'U 112°36'T	80.00
1999	03°30'U 104°12'T	64.00	06°00'U 111°54'T	162.00
2000	05°30'U 105°00'T	20.00	06°00'U 114°24'T	96.00
2001	07°36'U 103°24'T	45.00	06°30'U 115°06'T	54.00
2002	03°42'U 100°18'T	2.00	07°00'U 115°30'T	128.00
2003	04°36'U 103°54'T	8.00	07°12'U 115°36'T	24.00
2004	01°54'U 104°48'T	11.25	06°24'U 115°06'T	45.00
2005	04°36'U 104°18'T	160.00	07°06'U 115°30'T	63.00
2006	07°30'U 103°06'T	32.00	07°12'U 115°30'T	160.00
2007	06°00'U 102°48'T	150.00	07°06'U 115°30'T	81.00

Rajah 14: Taburan Tenaga Ombak Maksima di Semenanjung Malaysia

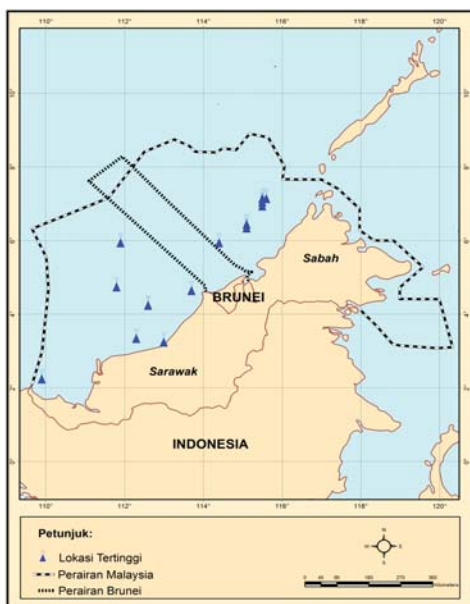
oleh daratan Sumatera Indonesia. Nilai yang rendah pada tahun 2002 dan 2003 di Semenanjung Malaysia adalah akibat daripada bilangan data yang sedikit berbanding di Sabah dan Sarawak.

Rajah 14 dan Rajah 15 menunjukkan taburan lokasi tenaga marin yang mempunyai nilai tertinggi bagi setiap tahun. Berdasarkan kepada penelitian lokasi, kawasan yang lebih berpotensi menjana tenaga marin adalah di sekitar perairan Kelantan, Terengganu dan Pahang bagi Semenanjung Malaysia dan di Perairan Kudat di Sabah. Walau bagaimanapun, kawasan di perairan Sarawak juga berpotensi menjana tenaga ombak kerana wujud beberapa lokasi yang berpotensi. Kawasan di perairan Bintulu merupakan kawasan berpotensi yang paling hampir dengan daratan dengan jarak sekitar 9km. Beberapa lokasi berpotensi juga dikenal pasti di kawasan Pulau Redang dan Pulau Perhentian di Terengganu dan secara tidak langsung akan memberikan impak dan peluang untuk menjadikan lokasi percubaan untuk dijana tenaga ombak.

KESIMPULAN

Tenaga marin mempunyai potensi untuk diterokai untuk menjadi salah satu daripada sumber tenaga di Malaysia. Menjelang tahun-tahun mendatang, pengeluaran tenaga hakiki seperti gas asli akan terus berkurangan dan ini

Rajah 15 : Taburan Tenaga Ombak Maksima di Sabah dan Sarawak



akan memberikan peluang kepada tenaga-tenaga keterbaharuan yang baru untuk dijadikan pelapis baru kepada tenaga yang ada pada masa kini. Dengan menggunakan GIS, analisis spatial penentuan lokasi penjanaan tenaga marin dapat dilakukan dan mengenal pasti lokasi yang bersesuaian untuk menjana tenaga marin di Malaysia. Daripada hasil kajian, didapati perairan Laut China Selatan merangkumi Pahang, Terengganu, Kelantan dan juga Sabah dan Sarawak mempunyai potensi yang baik untuk dijana tenaga ombak. Untuk merealisasikan tenaga ombak di Malaysia, kajian yang khusus tentang penjana tenaga ombak perlu dilakukan dengan mendalam bagi mendapatkan jumlah tenaga yang semaksima mungkin. Kajian yang menjurus kepada analisis ekonomi dan analisis persekitaran akan membantu untuk lebih memberikan daya nilai kepada penggunaan tenaga ombak di Malaysia. Kajian ini dapat membantu pihak kerajaan dan swasta untuk menerokai bidang tenaga keterbaharuan yang mesra alam. ■

RUJUKAN

Antenucci JC, Brown K, Croswell PL & Kevany MJ (1991), *Geographic Information System: A Guide To the Technology*, Springer, New York.

Bernhardsen T (1999), *Geographic Information Systems - An Introduction*, John Wiley & Sons, United States of America.

Burrough PA (1987), *Principles of geographical information systems for land resource assessment*, University Press, Oxford.

Charlier, RH & Finkl CW (2009), *Ocean Energy: Tide and Tidal Power*, Springer, Berlin.

Cruz J (2008), *Ocean Wave Energy-Current Status and Future Perspectives*, Springer, United Kingdom.

Darus ZM, Chawdar A, Karim OA, Maulud KNA (2009), *The Appraisal of Energy Policies and Potential of Renewable Energy as Alternative Source of Energy in Malaysia*, Proceeding of the 3rd WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education (EPSES '09), pp 32-37.

IEA-OES (2005), *Annual Report 2005*, International Energy Agency Implementing Agreement on Ocean Energy Systems (IEA-OES), Lisbon, Portugal: Executive Committee of the IEA-OES. http://www.iea-oceans.org/_fich/6/IEA-OES_Annual_Report_2005.pdf [28 Mac 2011].

Kaltschmitt M, Streicher W & Wiese A (2007), *Renewable Energy-Technology, Economics and Environment*, Springer, New York.

Maulud KNA, Karim OA, Sopian K, Darus ZM & Ramly EEM (2008a), *Identify A Potential Wave Energy Location In Malaysia Using GIS*, Proceeding of the 10th WSEAS International Conference on Mathematical Methods, Computational Techniques and Intelligent Systems

(MAMECTIS'08), pp 426-430.

Maulud KNA, Karim OA, Sopian K & Ramly EEM (2008b), *GIS Application In Identify a Potential Marine Energy In Malaysia (Case Study: East Coast of Peninsular Malaysia)*, Proceeding of the 7th International Symposium and Exhibition on Geoinformation 2008 (ISG2008), Putra World Trade Centre (PWTC) Kuala Lumpur, Malaysia,

Nelson V (2009), *Wind Energy: Renewable Energy and the Environment*, CRC Press, United States of America.

Özger M, Altunkaynak A & en Z (2004). *Stochastic wave energy calculation formulation*, International Journal of Renewable Energy 29 (10): 1747-1756.

Shekhar S & Chawla S (2003), *Spatial Databases - A tour*, Pearson Education, United States of America.

Suruhanjaya Tenaga (2006), *Laporan Tahunan 2006 Suruhanjaya Tenaga Malaysia*.

Suruhanjaya Tenaga (2008), *Laporan Tahunan 2008 Suruhanjaya Tenaga Malaysia*.

Suruhanjaya Tenaga (2009a), *Laporan Tahunan 2009 Suruhanjaya Tenaga Malaysia*.

Suruhanjaya Tenaga (2009b), *Industri Pembekalan Elektrik di Malaysia: Maklumat Prestasi dan Statistik 2009*.

Wengenmayr R & Bührke T (2008), *Renewable Energy: Sustainable Energy Concepts for the future*, Wiley-Vch, Germany.

Wright DJ & Barlett DJ (1999), *Marine and Coastal Geographical Information Systems*, CRC Press, United States of America.

Wright DJ, Blongewicz M, Halpin PN & Breman J (2007), *Arc Marine : GIS for a Blue Planet*, ESRI Press, United States of America.



Is Starhill REIT Still a Retail Sector REIT?

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Property Watch

Starhill REIT is no more a retail REIT; it is in the process of transforming into a hospitality REIT. The transformation started in 2010, when Starhill REIT sold its key retail assets i.e. Starhill Gallery and Lot 10 Shopping Centre to Starhill Global Real Estate Investment Trust in Singapore for RM1.03 billion.

THE SALES CONSIDERATION COMPRISE RM625 million in cash and the equivalent of RM405 million in convertible preference units (CPUs) issued by Starhill Global REIT. The CPUs provide an interest return of 5.65% p.a. Starhill REIT may only retain up to 10% of the CPUs as investment and the rest, if redeemed, shall only be utilized for the acquisition of hotel properties from YTL Corporation Group. The impact from the divestment can be observed on the financial statements with the property income being reduced to about one-third and the remaining two-third being interest income from the CPUs. Since 2010, property income for Starhill REIT comes only from JW Marriot and The Residences Service Apartments.

Starhill REIT has announced on 14 December 2010 that it will acquire nine hotel properties for RM1.054 billion which are to be satisfied via a combination of cash, new units and CPUs. The REIT is in the process of obtaining the necessary approvals for these proposed acquisitions.

The nine hotel properties comprised business hotels, luxury hotels and resorts:

- Vistana Penang
- Vistana Kuala Lumpur
- Vistana Kuantan
- Hilton Niseko, Hokkaido, Japan
- Remainder of The Residences at the Ritz-Carlton, Kuala Lumpur
- The Ritz-Carlton, Kuala Lumpur
- Pangkor Laut Resort
- Tanjong Jara Resort
- Cameron Highlands Resort

Upon completion of the acquisitions, the Starhill REIT property portfolio will have a geographically diversified hotel and resort properties. It will become the first hospitality focused REIT on Bursa Malaysia which add to the diversity of sector specific REITs available as investment options for investors.

Due to the higher risk in the hospitality market, the performance of Starhill REIT is expected to be more volatile in the future. In view of the prospective higher risk-return profile of the new hospitality REIT, existing institutional investors are slowly reducing their unitholdings in Starhill REIT as revealed in the thirty largest unitholders reported in the annual reports.

For investors who would like to continue investing in retail REITs, Hektar REIT, the new CapitaMalls Malaysia Trust (CMMT) and Sunway REIT offer suitable choices. Hektar and CMMT offer pure retail sector exposure whilst Sunway REIT has 66% of its property portfolio being retail properties. ■



Conflict Resolution

Managing Difficult People

Paul Endress

CEO, Conflict Resolution Tools

One of the most frequent questions that I am asked is "how do I manage difficult people?" In this short article I'm going to reveal my three-step process for managing difficult people; but before I get into the process, let's explore some of the psychology behind difficult people.

WHAT IS A DIFFICULT PERSON?

The best answer is that "you know one when you meet one!"

Difficult people are the small percentage of the population that just can't seem to get along with anyone. In fact, many times people will go out of their way to avoid interacting with them because they are so unpleasant.

Sometimes difficult people know that they are difficult and sometimes they don't. I have had more than one person who I thought was difficult ask me why other people were so hard to get along with!

To me it was obvious that they were the problem, but to them it wasn't.

Types of difficult people

Starting with Robert Bramson in 1981, there have been numerous attempts to classify difficult people into groups and provide guidelines for managing each group.

However, my experience working WITH difficult conflict resolution situations has taught me that it is best not to put people into categories because it removes their individuality, and that can lead to prejudices caused by misclassification. Sometimes it can even be used to provide a comfortable excuse for your own failure to be flexible enough to adapt to individual idiosyncrasies.

The best approach to managing difficult people is to understand the universal psychology behind being difficult and provide a framework that works in all situations. Let's start by understanding why people are difficult.

Why difficult people are difficult

There are two common reasons why people exhibit behaviours that others find to be difficult. The first reason is that they simply don't realise how much their actions irritate other people. Many times this type of problem can be corrected simply by explaining the problem to the difficult person and perhaps providing some training. Once there is a mutual understanding of what needs to be done, they implement the changes and the problem goes away.

The second reason that difficult people are difficult is because by engaging in the behaviour that makes them so hard to get along with, they get something important that they want or need. While this reason is the most challenging it is also the most common and it can be managed if you know how.

Here is my 3-step process for managing difficult people:

Step #1 – Find the gain. Ask yourself the question: "What is the difficult person getting out of this?" Keep asking the question until you come up with the

"The best approach to managing difficult people is to understand the universal psychology behind being difficult and provide a framework that works in all situations."

answer that reveals the benefit that they get from their actions. While you are asking the question, keep in mind that to you the benefit may seem small, but to the other person what they are gaining is important enough to justify the rejection and hard feelings that result. Look at the world through their eyes, not yours.

A good example of a gain is someone who gets angry and uses their anger to control people and situations. They may even threaten you with it. Once you realise that anger is their method for meeting their need for control, you are on your way to managing your difficult person.

Keep in mind that many times the benefit of the bad behaviour is so great in the mind of the difficult person that they are willing to endure bad side effects. An angry person can easily alienate family, friends, and co-workers, and many times they will feel depressed when they calm down from their anger, but they will do it time and time again because at an unconscious level it meets their need for control.

Step #2 – Break the strategy. Once you have determined the need that is being met by the difficult behaviour, the next step is to make sure that they no longer get the anticipated benefit when they use the behaviour. Using the example of the angry person, you must be prepared to not give in to them no matter how much they turn up the heat.

When you do this two things will happen: (1) they will do the bad behaviour even more because they are confused as to why it is not working, and (2) when they realise that it no longer works, they will begin to look for a new way to get what they need. This is where you come in with step #3.

Step #3 – Fill the vacuum. When their previous bad behaviour stops meeting their need it creates a vacuum, so it is important for you to have a plan in place that will provide them with a better way of meeting their need. They still have the need even if they are now confused about how to get it.

You may even elect to tell them that what they were doing will no longer work, but they can get what they want by doing something different. Continuing with the anger example, you might say: "Joe, I am no longer going to allow you to get your way by being angry. But if we can discuss this calmly, I think I can grant your request."

Being ready to fill the vacuum is crucial to your success in managing difficult people because if you don't fill the vacuum and give them what they need in another way, they will quickly revert back to the old habit because they don't know what else to do.

Used together, these three steps give you a method of managing difficult people that will benefit everyone, including the difficult person.

To learn more about conflict resolution, download my free 10-Day Conflict Resolution Email Series at Conflict Resolution Tools. ■

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Paul Endress is CEO of Conflict Resolution Tools, a full-service effective communication and conflict resolution training and product development firm. He can be reached directly at <http://www.conflictresolutiontools.com>.

"Once you have determined the need that is being met by the difficult behaviour, the next step is to make sure that they no longer get the anticipated benefit when they use the behaviour."

The Connection between Thoughts, Feelings & Stress

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Thoughts cause feelings, and the wrong kind of thoughts can cause stressful feelings. Most of the time, we look at the same event differently, even among friends and close family members. For example, a transfer involving a colleague from one department to another is always an issue discussed differently at the workplace and at home. One is to accept the transfer optimistically by looking at the new opportunities, colleagues and the new work environment; while the other is pessimistically, such as leaving behind family members, co-workers and comfort. It is the age old debate of whether to look at the glass as half full or as half empty.

Positive Living

IT REALLY HELPS IF YOU CAN LEARN TO look at the good things in life rather than the ugly ones. For example, you met with a nasty car accident during the morning rush hour, and you stand by the roadside waiting for the tow truck to come to the rescue. With so many eyes watching the aftermath of the accident during the morning peak hours, you feel irritated and curse yourself for the heavy damage to your car. Feeling sorry for the cost of the repair and the delay in attending an important meeting are actually typical self-defeating feelings and experience. On the other side of the coin, you can thank God that you were not killed in the accident. Things had happened and there is no turning back. Consider this, the damage was only the first for a 3-year old car that has an excellent record when compared to one of your colleagues who is known for his reckless driving and who meets with accidents every other week. Although his accidents are never severe they are numerous near misses and the car has many dents at almost every corner. When you look at every life event that comes your way in this manner, you will have something to

smile at and this is the power of positive living. Learn to say self-comforting phrases such as "Well, it's only an accident", or "It's already happened. So what?", or "It's one of those things in life", and so on.

Positive Thoughts and Positive Feelings

The fact remains that accidents happen even if you don't like it. The best that you can do is to be careful on the road at all times and under any circumstances. Even so, there are always reckless drivers who are always a nuisance to the other road users. Problems do happen to others as a result of one silly mistake and there are others who suffer. Tough times come and go but tough people are always the champions under these circumstances for they look at problems that come their way in the proper perspective.

That reminds me of a story I used to narrate about positive thoughts and negative thoughts. A young guy just bought a set of new sports rims for his car, something that he really treasured. Then, one day he parked his car at a shopping complex. An hour later, he came back to his car and found all the new rims went missing. I happened to be at the car park and heard him cursing wildly and I understood how he felt. With his wild act, I was confused as to how to calm him down and to teach him how to accept the fate of his day. What I did say to him, "Hey son, you must be grateful for what has happened to you. You lost the rims but the car is still here. What if the culprits stole the car and left behind the rims?" I never planned for that kind of response, but that spontaneous words worked. The young guy jumped at me and thanked me for that remarks and said, "I can always save for a new set of rims but not the car".

Learning to have positive thoughts and positive feelings are indeed the recipe for a stress-less life.

To live with positive thoughts and feelings you need tremendous effort to continuously train and accept things that come our way. The best that you can do is to be cautious as unwanted things do happen from time to time, and handling these situations needs continuous training. They following are some useful tips:

a. Every living human being has problems, either big or small

To live means to face things that happen and such events do come with problems and they may come in many different forms. Perhaps you are unhappy with your work. Isn't it good that you have a job rather than being unemployed? Your car broke down at home. You must be grateful that it broke down at home and not at the busy traffic light on a hot day. Many people have the simple mistaken notion that successful people do not have any problems which is never true. Success tends to breed its own set of problems, sometimes bigger than those problems of those who are unsuccessful.

The fact remains that we all have problems, either big or small. A person who dreams to live a problem-free

life is a real day-dreamer. As problems come and go the art of handling those problems to the best of our ability is the real meaning of a true life. By doing so, we learn to move on with life with all the problem solving skills that one accumulates over the years rather than feeling sorry for your self. Balance the "must-haves" and the "good-to-haves" realistically by acknowledging your strengths and weaknesses using your own yardstick and not others.

b. Problem normally has a limited life span

Life is beautiful with its ups and downs, similar to mountain peaks and valleys that we see along the beautiful country side. Realising that most problems come and go after some time, resolving those problems shortens its life span and this really needs skills and guts to face those problems your self. Realise that problems do get resolved in the long term it is that very knowledge that will differentiate between the smart and the not-so-smart, the short-term sufferer and the long-term sufferer.

As the old saying goes, "A storm is followed by sunshine, and winter is followed by spring". Rather than taking things for granted, there are also longer spans of storms that end up with swelling rivers and flash floods, and severe winters with power cuts and calamities, but sunshine and summer will certainly come by. Again, accept the fact that in life we must learn to balance the "must-haves" and the "good-to-haves" realistically for life to be meaningful.

c. Problems hold positive and negative possibilities

Most things that happen around us teach us lessons. Realise that things happen for some reason and these lessons learnt are invaluable in life to us. What may be a problem for you, can be an interesting opportunity to someone else. There are two sides to every coin. Hospitals are

there because people get sick; lawyers are there because people get in trouble with the law occasionally; insurance agencies exist for people who want to be covered, even at a high price; and garages and workshops are there because cars do break down, even new ones.

Every cloud has a silver lining. Poor management of problems that come our way can lead to anxiety, depression, feelings of inferiority, perfectionism and anger, thus making us our worst enemies. We tend to put higher standards on ourselves compared to others. We end up criticising ourselves for our occasional miscues rather than being happy for the numerous achievements and accomplishments. Allow yourself to fail from time to time; it's all part of being human for not being perfect.

d. Every problem will change us in some way

Meeting problems head on will either make us better or worse. What is certain is that problems never leave us the same way they found us. Every problem will change us in some way. We may lose a brother and will end up depressed but make us closer to their

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children. We may lose our partner and feel devastated as if there is nothing to look forward to in life, at least in the very near future. We may lose our job for some reason and really feel sorry for our family members and ourselves. Whatever the circumstances, we may feel depressed, lonely, frustrated or even aggressive, and the list goes on and on.

Understanding the whole scenario and make intellectual judgment on what has happened is a wise thing to do but needs lot of patience. For example, a disagreement with your spouse could be of your own doing and not understanding how fatigue she is with the household chores, apart from her other tasks. A frustrating moment with the boss could be due to your own mistake that affected the monthly unit performance index.

As life has to go on, facing every problem that comes our way teaches us to think what is best under those circumstances. Some consider this experience as a wake-up call and born is the courage to embark on a successful mission. While every problem has a positive and negative side to it, the best option is always to work for a positive outcome and realising that any potential negative outcome will make us even worse off. Tough people always learn to choose the most positive reactions in managing problems. They manage their problems wisely with caution while accepting that they have little control over the problems but they do have control on how to react and manage the problems as they come. Positive people chose to react positively to their predicaments. The choice is yours.

e. Be grateful as you chart your problem

Problems come anytime especially when you are off guard. While some are not our own makings and are beyond our control, the most important thing to do is to control our reaction or response to the problems as they surface. Turn your pain into useful lessons while controlling the reaction even if you cannot control the problems. Learning to control the effects of the problems by controlling the reactions will make you tougher and mature. Look at the positive side of the story, bad or negative news gets more attention than good ones. Optimism and positive attitude promotes good health and develops healthier immune system while pessimistic expectations breed negative experiences.

No matter how bad things might appear, there is always the silver lining. There are others who have worse problems but are committed to improve themselves. By being grateful, we make a habit of learning to like ourselves and make conscious efforts to reach out to those who are unfortunate.

f. Take time to do things you enjoy

We may feel tired and exhausted and have little enthusiasm for life. Perhaps you should take time to be alone and do nothing for a day, and think about those things that can bring fun into your life. Many of us take things for granted in life such as the daily routine of getting up, going to work, doing more work, coming home, doing more work again, and going to bed. Even in bed, you are still thinking about those unfinished jobs and what to do first thing tomorrow morning once you reach the office, withholding the killing motto "all work, no play".

All work, no play, and work to live or live to work.....these are statements commonly mentioned but many can not actually decide which one is true. In fact, choosing one of these scenarios will dictate the degree of stress one is facing. Leisure time is always free if you want it. But it is vital in order to keep enthusiasm for the other aspects of your lives. You have a right to free time and don't feel guilty about taking it. Plan those routines that can work off tensions such as gardening, starting a practical hobby, joining a club that works best for you such as residents association, or stay committed to pursue a regular weekly exercise routine. It is wiser to regret now than later, even worse if never. By not having a wise strategy, we are prone to more stress with mental, physical and emotional conditions that are often not recognised until when we are in real danger.

Know the symptoms of stress such as being permanently tired; finding it difficult to laugh and getting upset very easily, even to trivial matters; having no enthusiasm for work, family or friends; having an impending feeling of doom hanging over you; suffering from regular backaches, headaches and stomach aches; inability to sleep; or waking up in the morning feeling anxious and as tired as when you went to bed.

If any of the above symptoms apply, then you must be suffering from stress. You must at least learn the basic stress maintenance remedy; or get professional assistance from a trained stressologist, counsellor or mentor to overcome burnout due to stress. Find a trustworthy friend to share your feelings; join a support club; open up and be true to yourself; and learn practical tension and stress relievers. Put your problems in perspective. We all have problems; in fact, others may be worse than you.

The above tips teach us to be wiser in making a deliberate choice between being negative or positive, happy or unhappy. Prophesying to positive deeds and remarks rather than negative thoughts is the key to a stress-less life. Be fair to yourself before being fair to others. Say positives encouraging words to yourself such as: "I am unique"; "I chart my own destiny"; "I have the power to live my own life"; "Despite my weaknesses and defeats, I have my own strengths and successes; and "I must talk to somebody".

Thoughts cause feelings and the wrong kind of thoughts can cause stressful feelings. Say this to yourself - "I am committed to this and I am starting NOW".

So that's the connection. ■

W.M.A. Wan Hussin is a Professor at the School of Civil Engineering, Universiti Sains Malaysia. He conducts several courses on stress management and delivers public lectures and talks on management issues for various organisations. He is currently a Licensed Land Surveyor under Act 458 [Revised 1991], a Malaysian Speaking Professional (MSP) of the Malaysian Association of Professional Speakers, a Fellow of the Institution of Surveyors Malaysia and a Certified Professional Utility Locator and can be reached at wmbwh@gmail.com.

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B&C Jurukur Bahan Berkanun, Sel

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PKNS Infra Bhd, Sel

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Nor Zarina bt Mohd Noor
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Nur Elia bt Maryani
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Rosnami bt Kusairi
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Siti Aminah bt Sapiee
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Northcroft Lim Perunding S/B, Sel

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Twintech, KL

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Irma Izzati bt Ismail

Irinazila bt Mohd Zulkflee

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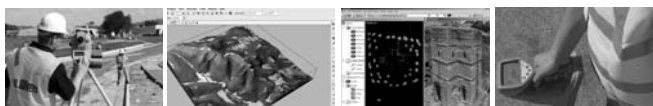
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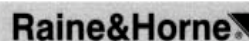
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