Which bookshop in Malaysia is the best for English books for children? Kinokuniya, MPH, Borders, Times, BookXcess, or Popular?

My wife and I have been encouraging our only son, Zachary, to read since he was only one month old. It is inspiring to see him, now age 5 years old, to select a book from his library to read on his own. Zachary loves reading, and he always brings two to four books to accompany him in bed at night. He enjoys reading more than watching TV or playing with the computer.

Zachary reading his own selected book in a bookshop

How did we encourage him to read? It helps a lot that my wife and I read a lot, and our home has a huge library of books. Zachary is growing up in an environment of books, so he must have sensed the importance of books in our lives. Moreover, my wife and I do not often watch TV. This "lack of TV presence" must have left an important imprint on Zachary because he will become bored, restless, and tired with any more than an hour of watching TV.

Zachary: "While my Daddy is busy doing his thing, I'll just sit here and read my book."

Zachary's love of reading is a product of the reading aloud system. What is reading aloud? It is a habit of a consistent reading to your child and choosing the right books for your child. Reading aloud is storytelling based on a book. You hold and show the book to your child, and as your child is looking at the pages, you read aloud to your child, using whatever intonation and expression necessary to emphasize the story. That way, your child feels excited and entertained by the story. Your child will initially pick up a word or two from these books, but this learning process accelerates over time. Your child will build up his or her vocabulary at a rapid rate.

Read aloud: Habitually reading a book with your child is crucial to cultivate a strong reading habit in your child (photo from bookdads.com)

Reading aloud teaches your child the valuable skill of reading. But most importantly, reading aloud inculcates the love of reading within the child so that reading becomes a pleasurable activity.

A strong reading habit encourages self-learning skill badly needed later in life. Reading changes the way your child thinks, speaks, and behaves. Observe and compare children who read a lot and those who do not. The differences between them are not subtle.

Zachary's library at home...hmm...packed...

Choosing the right books for your child is important. The following are my

suggestions for choosing the right books for your young child:

1. Choose books that both you and your child enjoy reading. My child, Zachary, for example, loves books about machines such as cars, trucks, planes, trains, and construction vehicles.
2. Vary the reading materials to include non-fiction such as history and science.
3. Choose books that have bright and large illustrations.
4. Choose books that have a strong and memorable storyline.
5. Choose books that have an inspiring or satisfying conclusion.
6. Choose books that have sentences that rhyme and have repetitive words.
7. Do not assume that books written by famous pop stars or actors are always good. Even authors who typically write books for adults may not necessarily write good children books.
8. Avoid books that are dull or have uninspiring stories.
9. Avoid flashcards because the words on these cards exist without context. Learning words through flashcards become too academic and boring to your child.

What about local books for children? Unfortunately, local books fall far short of the quality typically found in international books. Some local books have beautiful illustrations, but they are often let down by poor storylines or contain cursive words that are difficult to read for young children or the words are too small.

Which bookshops in Malaysia?

Fortunately, finding English children books in Malaysia is simple. However, not all bookstores are the same. Here is my ranking of bookstores in Malaysia that carry the best English children books:

Which bookshop in Malaysia is the best for English books for children? (photo from apostolate-of-the-laity.blogspot.com)

Rank 6 (The Worst).

Popular – A bookshop more suited to find Chinese-language books than English children books. Popular is not a place to find rare or unusual children books. Nearly all English children books found in Popular are the usual Disney, Barney, Dora, Sesame Street, and Ben 10 books. The best Popular branch to find children books is IPC mall (formerly, Ikano) but even then good English books are found wanting. One advantage of Popular over other bookshops is Popular carries out frequent book sales and its store members often get additional discount.

Rank 5.

Times – A bookshop that is slowly dying and it shows. Good or unusual children books are often difficult to find here. If you have to go to Times, try the branch at Pavilion or at Hartamas Shopping Centre.

Rank 4.

MPH – This is perhaps the bookshop with the most branches in Malaysia. The best branch to find English children books is in 1Utama. Finding good books in other MPH branches is a bit of hit-or-miss affair. The Midvalley MPH branch used to be a good place to find books. However, they have recently moved into a smaller lot, and with that move, the quality of English children books have taken a huge hit.

Rank 3.

Borders – A newcomer in Malaysia and the best branch is at Curve mall. What I like about Borders is they carry children books that are typically not found in Times, Popular, or MPH. Moreover, they have recently introduced membership so that store members get a discount on all books.

Rank 2.

BookXcess – A surprise entry to some folks here because BookXcess is not known widely among Malaysians. They are the organizer of the extremely popular Big Bad Wolf Book Sale. BookXcess has only one branch, and it is located at Amcorp mall. BookXcess is THE place to find really cheap children books. Discounts can be high as 50 to 70%. Moreover, a good number books sold here are those that cannot be found anywhere else in Malaysia. They also offer store membership, but additional discounts (as though their 50 to 70% discounts are not high enough) are only given for purchases above RM100.

BookXcess shop at Amcorp mall
(photo from bookxcess.com)

Rank 1 (The Best).

Kinokuniya– Found only at KLCC, Kinokuniya bookstore is a dream haven for book lovers. Kinokuniya is by far the best bookshop in Malaysia, not only to find children books but also to find any books in general. Children books found here are also typically not sold anywhere else. Kinokuniya beats BookXcess simply because Kinokuniya carries far more books than BookXcess. And if you have difficulty looking for a book title among the bookshelves, Kinokuniya staff are

trained to find the book for you, and not just point at the general direction at where your book could be found. Kinokuniya also offers store membership for 10% discount on all book purchases.

Kinokuniya (at KLCC) is the best bookshop in Malaysia (photo from travelfish.org)

So, if you are a parent looking for quality English children books, you only have two places to go: BookXcess at Amcorp mall and Kinokuniya at KLCC. Both these places carry children books not found elsewhere. BookXcess is a great place to buy books at bargain prices, and Kinokuniya is a place that overwhelms you with book choices.

Little (or no) difference between

petrol brands in Malaysia in terms of fuel consumption (after 1.5 years of measurements)

This blog entry is an update to my first report on my car's fuel consumption (FC) for various petrol brands.

Background of study

About one and a half years ago, I started to measure the fuel consumption (FC) for my new car (Nissan Grand Livina). Like any new car owner, I was curious about my car's FC. I then decided to determine if there was any difference in FC between petrol brands in Malaysia. After six months of measurements, I reported my results here in my blog (Read here).

I reported then that there was a difference between petrol brands, notably between Shell and Petronas. I discovered that Shell gave the lowest FC for city driving but Petronas the lowest for highway driving. My results then was surprising because I had always presumed that even if there was any difference between petrol brands, their differences would be too small to be appreciated or noticeable in normal driving conditions.

Which petrol brand in Malaysia gives the lowest fuel consumption? BHP, Esso, Petronas, or Shell? (photo from santainrileks.wordpress.com)

I continued with my measurements because I wondered if my initial findings would remain stable over prolonged time (in other words, *was my initial results due to chance?*).

This blog entry is to update my results after more than one and a half years of FC measurements.

As before, I like to stress emphatically that my study is in no way of a scientific study setup. There are many weaknesses in my study that can distort (and even invalidate) my findings. For one, to be scientifically rigorous, my study would need more than one car and one driver (at least 12 cars and 12 drivers, to be exact). Second, each car must be filled with only one petrol brand (no mixing of petrol brands in one car). Third, all cars must be driven out for FC testing at the same time, and fourth, all cars must be driven along the same route – akin a caravan of test cars (and the order of the cars randomized for every trip). Many more conditions are required to make my study much more scientifically valid.

So, with that understanding, readers should kindly take the following results as only a rough or speculative indication of the FC differences between some petrol brands in Malaysia.

Overall FC

After a total of more than 100 petrol fill ups, my car's average FC is determined to be 7.85 L per 100 km (which is equivalent to 12.81 km per L or 30.12 miles per gallon). At the current price of petrol, my car's FC is 15 sen (cents) per km. Since I drive an average distance of 104.94 km per day, this means I spend an average of RM15.48 per day on petrol.

Fig. 1 shows my car's average FC for seven groups of daily average distances. Up to 145 km per day of travel, my car's average FC tends to remain unchanged because the confidence intervals (CIs) for the first four groups of distances overlap one another.

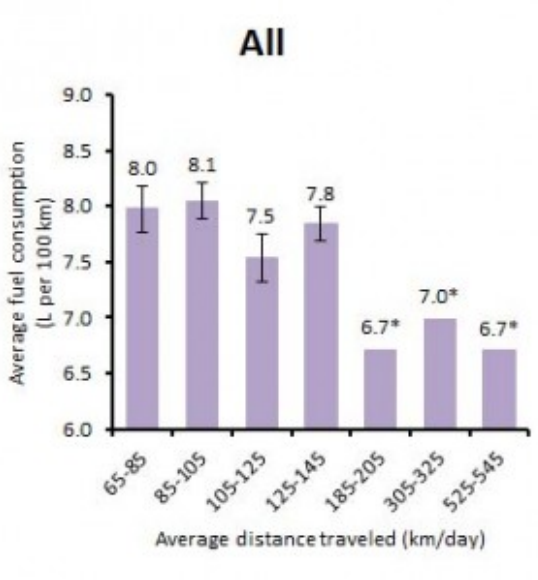


Fig. 1. Fuel consumption for several distances traveled per day (note: asterisks denote insufficient measurements for confidence interval calculation)

But for greater distances (>185 km per day), my car's FC would improve (i.e., become smaller). Note that for these great distances, I only have one FC measurement for each distance group, so I could not calculate each of these group's CI (at least two measurements are needed).

Nonetheless, their lower FC averages (6.7-7.0 L per 100 km) compared to that for the shorter distances (7.5-8.1 L per 100 km) suggests that my car's FC would fall if I were to drive my car for more than 185 km in a day.

That my car's FC would improve if I traveled greater than 185 km per day can be explained. The further I traveled in a day meant that I was using the highway roads more. Driving on highway roads tends to decrease FC because of better road conditions, lesser traffic, lesser braking-and-accelerating movements, and our cars can be driven at the optimal speeds for longer periods (note: for Nissan Grand Livina, the optimal speed for lowest FC rate is between 70 to 75 km per hour).

Individual FC

Fig. 2 shows my car's FC based on individual petrol brands. For BHP, my car's FC would start to fall if I traveled greater than 105 km per day. However, for the

other three petrol brands, there was no clear trend of any change in my car's FC for traveling distances less than 145 km per day.

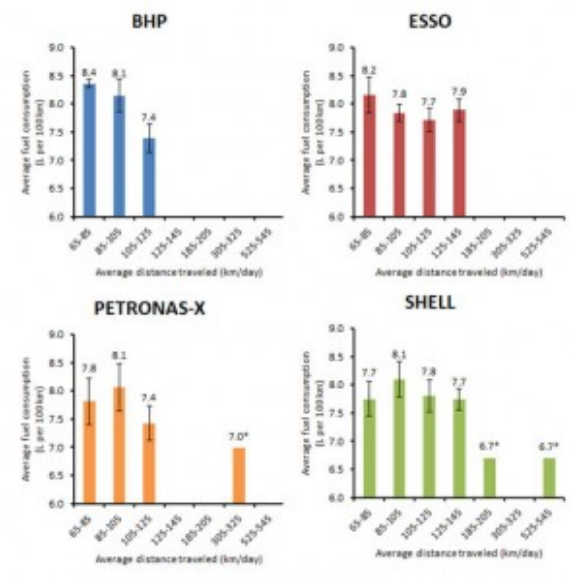


Fig. 2. Fuel consumption for various petrol brands and for several distances traveled per day (note: asterisks denote insufficient measurements for confidence interval calculation. Petronas-X is the new formulation for Petronas)

For Petronas-X, only one FC measurement was done for 305-325 km per day, whereas for Shell, one FC measurement was done 185-205 km per day and another for 525-545 km per day. It is unfortunate that I have very few FC readings for these greater traveling distances. Thus, for these great distances, I could not calculate their CIs due to insufficient measurements.

Nonetheless, the lower FC averages for these greater distances (>185 km per day) suggests that my car's FC would indeed fall. This is especially true for Shell where my car's average FC was measured at 6.7 L per 100 km. More measurements are needed to confirm this trend.

What about FC differences between petrol brands? Take the first group of 65-85 km per day. The average FC for BHP, Esso, Petronas-X, and Shell for this group was 8.4, 8.2, 7.8, and 7.7 L per 100 km, respectively. Their averages may differ, but their CIs overlap one another – and not just for 65-85 km per day group but

also for other groups as well (85-105, 105-125, and 125-145 km per day).

My results show that there is insufficient evidence that one petrol brand is better or worse than another brand. Instead, it is likely that there is no difference between petrol brands in terms of
FC.

Old vs. new Petronas formulation

My first six months of study reported that the old Petronas formulation was best for longer traveling distances. So how did the new Petronas formulation (Petronas-X) stack up against the old formulation?

Fig. 3 shows the FC for the old Petronas formulation (using same data as in my first report, just expressed differently). Compare Fig. 3 with the Petronas-X chart in Fig. 2. Initial examination may seem that the old formulation gave better FC than the new formulation for long traveling distances. For instance, the old formulation's average FC for the 105-125 km per day group was 6.6 L per 100 km, which is lower than the new formulation's average FC of 7.4 L per 100 km for the same group. But look at their CIs. The CI for the old formulation was large, and it overlapped with the CI for the new formulation.

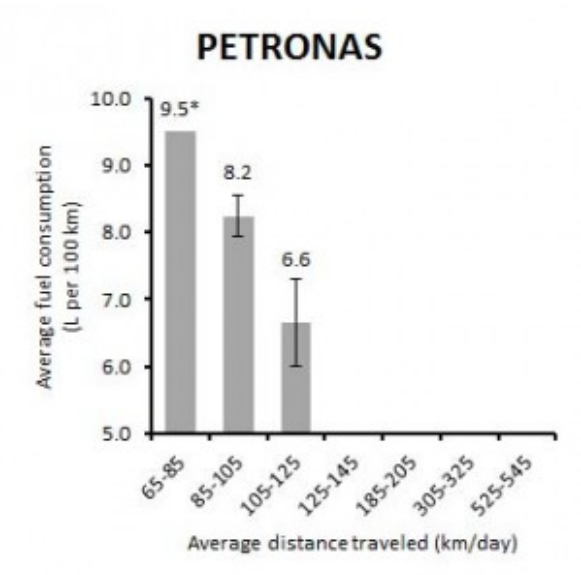


Fig. 3. The fuel consumption for the old formulation of Petronas (note: asterisk denotes insufficient measurements for confidence

interval calculation)

For the 85-105 km group, both formulations have similar average FCs and their respective CIs also overlap each other. For the 65-85 km group, the old formulation had an average FC of 9.5 L per 100 km, but this value was based only on a single measurement (thus, its CI could not be calculated). Perhaps with more measurements, I might have obtained an average FC more similar to that by the new formulation (7.8 L per 100 km) and a CI that overlapped the CI for the new formulation.

My results suggest that there is little difference, if any, between the old and new Petronas formulations.

Remarks on the results

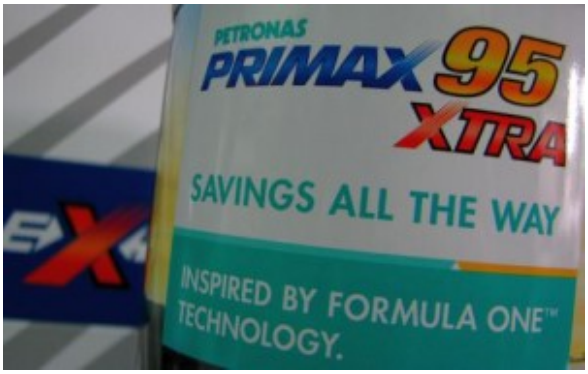
Unless we can control the environment in which we test the various petrol brands, it is crucial we do many, many measurements over prolonged periods. People often make too few measurements before deciding on the best petrol brand. We cannot also decide on the lowest FC petrol brand simply by comparing FC averages. We also need to compare the petrol brands' CIs which show the margins of error for the FC measurements.

This update after one and a half years of continuous measurements is more pessimistic than my first (initial) report. With more than 100 FC measurements, my study reveals that there are likely to be little differences between petrol brands in terms of FC. Although my car's FC would likely fall if I drove more on highway roads, no one petrol brand show any advantage over others.

That said, however, BHP warrants more FC measurements especially for longer daily travelling distances. Fig. 2 shows that BHP tended to give lower FC starting at a shorter 105 km of distance traveled per day. For the other petrol brands, they are only likely to start giving lower FC at further distances of 185 km per day onwards.

Perhaps petrol brands are different from one another, but my study suggests that these differences could be too small to be noticeable in everyday driving conditions. In a controlled environment, these petrol brands may give clear and measureable differences in terms of FC, but in the uncontrolled and varied

conditions of the outside streets, these differences may become less pronounced or significant.



New Petronas formulation but improvements not significant enough in everyday driving conditions? (photo from paultan.org)

My study cannot prove or disprove anything due to the lack of scientific rigor in my study setup. As mentioned previously, my study can only offer speculative or tentative findings. I end this update by saying that more measurements are required to verify my results and to determine the stability of my latest round of results.

Use Shell, less fuel, and save money? Study over 1.5 years showed no clear differences between petrol brands in

Malaysia (photo from grey.my)

Until my next update, ciao.

Further reading

- PETRONAS PRIMAX 95 XTRA – better mileage, more power
- Differences Of Ron 95 Petrol Properties From Bhp Petronas Shell Caltex Esso Mobil
- Overlapping Confidence Interval and Statistical Significance

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Electricity from solar energy in Malaysia: Clean, renewable, and abundant energy source, so what's the problem?

In 2010, Malaysia's electricity generation totaled at 137,909 GWh. Malaysia, being near the equator, receives between 4,000 to 5,000 Wh per sq. m per day. This means, in one day, Malaysia receives enough energy from the Sun to generate **11 years** worth of electricity. This is an incredible potential amount of energy into which Malaysia can tap.

Malaysia currently adopts a five-fuel mix (gas, coal, hydro, oil, and other sources) for electricity generation. From 2000 to 2010, electricity generation in Malaysia increased an average of 8% per year from 69,280 GWh in 2000 to 137,909 GWh in

2010. In this period, the contribution from gas for electricity generation declined from 77.0 to 55.9%, hydro from 10.0 to 5.6%, and oil from 4.2 to 0.2%. In contrast, the contribution from coal for electricity generation increased from 8.8 to 36.5% and other sources from 0.0 to 1.8%.

Under the 10-th Malaysia Plan, the Malaysian government wants 5.5% of total electricity to come from renewable energy sources by 2015. However, the current contribution from renewable sources (such as biomass, biogas, wind, and solar) for electricity generation remains very low, of which solar energy only contributes a mere 0.007% of the total generated electricity in Peninsular Malaysia. The negligible contribution by solar energy is due to several reasons. One of them is the lack of awareness among Malaysians about the use of solar energy for electricity generation. However, the largest hurdles to solar energy adoption are the high cost and low efficiency of solar panels or photovoltaic (PV) cells.

Solar irradiance generally declines from the north to the south of Malaysia, so that northern states such as Kedah, Penang, Kelantan, and Sabah receive the most amount of solar radiation, whereas southern states like Johor and Sarawak receive the least (Fig. 1). The mean daily sunshine hours in Malaysia ranges between 4 to 8 hours per day.

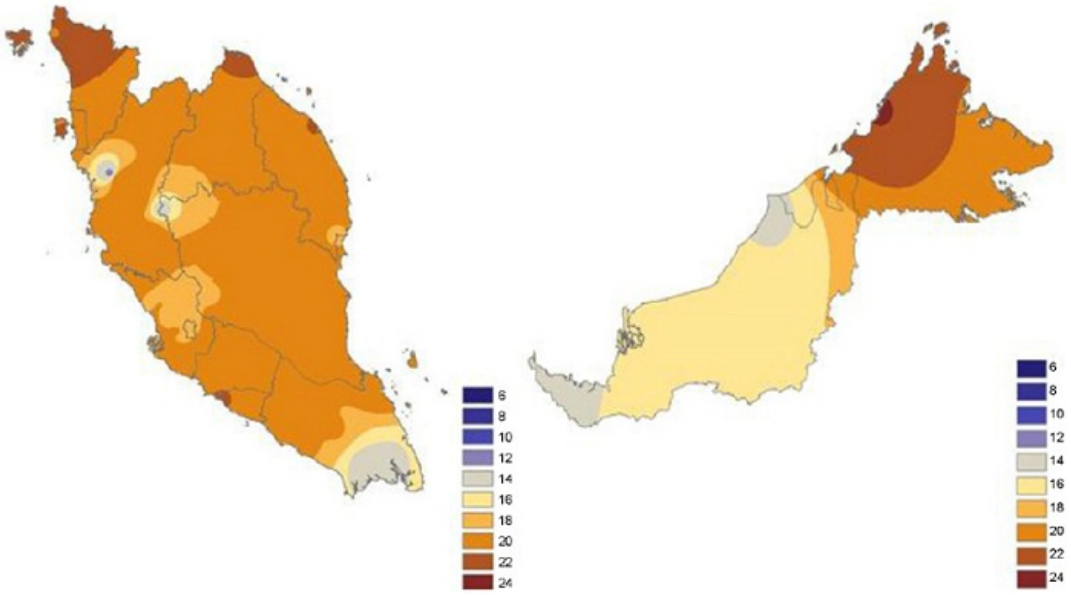

Fig. 1. Average daily solar radiation (MJ per sq. m) across Malaysia (Mekhilefa et al., 2012)

On average, Malaysia receives about 17 MJ per sq. m of solar radiation per day

(Fig. 2 and 3). From 1989 to 2008, there is no trend that the average daily solar radiation would increase or decrease throughout this period, except for towns such as Kuala Terengganu and Senai where there is a weak linear trend showing a decline in solar radiation received by these two towns. Kota Kinabalu in Sabah also showed declining solar radiation from 1990 to 1999, after which solar radiation would increase and stabilize at around 20 MJ per sq. m per day.

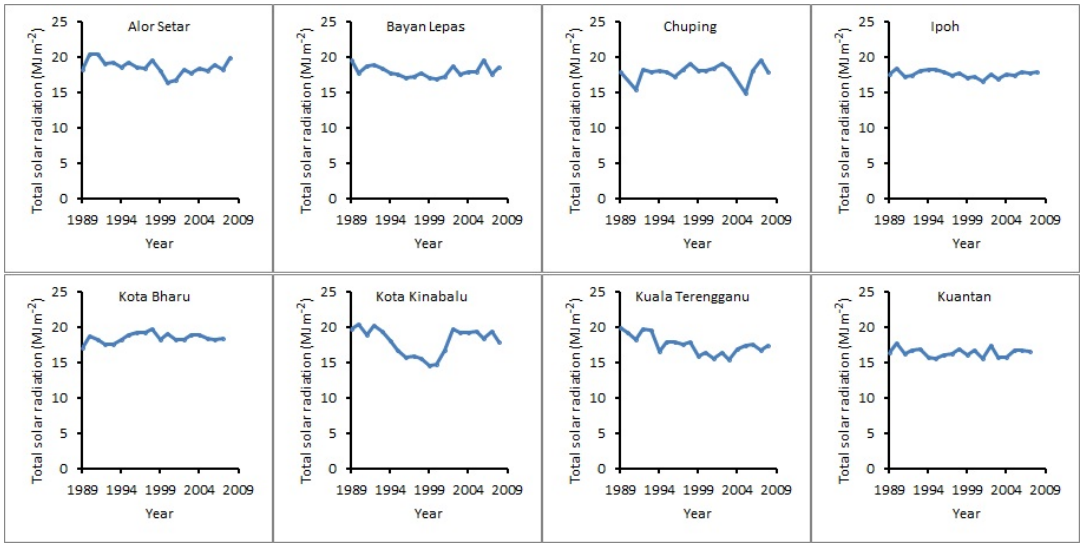

Fig. 2. Average daily solar radiation (MJ per sq. m) for some towns in Malaysia from 1989-2008: part 1 of 2

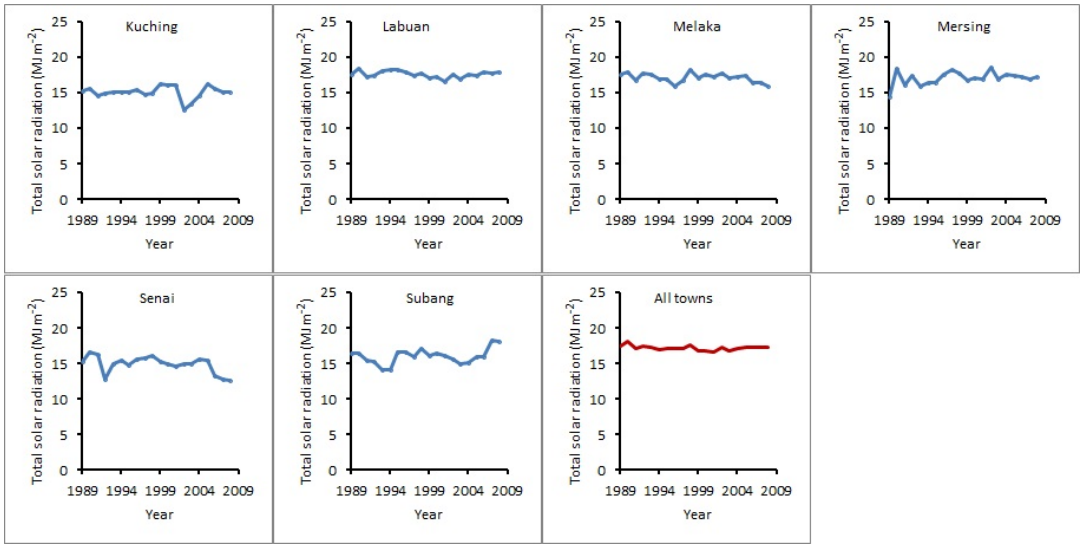

Fig. 3. Average daily solar radiation (MJ per sq. m) for some towns in Malaysia from 1989-2008: part 2 of 2

In Malaysia, solar energy is used for two purposes: 1) solar thermal applications, and 2) PV technologies. Solar thermal applications are where heat from the solar

energy is used for heating purposes, while PV technologies are for electricity generation.

Solar panels for either thermal or electricity purpose can be mounted on rooftops. Although the rooftops of house and buildings are said to be “dead space” because they are unused, not all rooftops are suitable to be mounted. It is estimated that only 2.5 million houses and 45,000 commercial buildings in Malaysia are suitable for solar panel mounting. This is because the design and orientation, as well as the external environment, of the buildings would affect the harvest of solar energy.

PV cells are emerging as one of the attractive alternative to national utility grid power. PV systems was introduced in Malaysia in the 1980s, and from 1998 to 2002, six pilot grid-connected PV systems was setup at high monetary costs. Since then, PV systems have grown steadily so that in 2005, a total of on-grid 470 kW peak was established, with 3 MW peak as off-grid.

Solar panels on a rooftop of a bungalow in Malaysia (photo from mbipv.net.my)

To further encourage the adoption of solar energy, the Malaysian government introduced the MBIPV (Malaysia Building Integrated Photovoltaic) project in 2005. MBIPV was to design the integration of PV cells into buildings or structures; thus, saving costs because the PV systems would be fabricated within the structure of the building. MBIPV aimed to increase PV capacity in buildings by 3.3 times while reducing costs by 20% compared to the baseline. Currently, PV systems with a total of 213.61 kW peak have been installed over 18 locations in Malaysia via the MBIPV project. Moreover, through MBIPV, SURIA 1000 was

established, with the aim to install solar panels on 1,000 rooftops in Malaysia (to date, however, only about 100 households have PV systems in Malaysia).

One important progress towards reducing dependency on fossil fuels and mitigating climate change is the establishment of Feed-in-tariff (FiT) scheme in Malaysia last year. FiT encourages the adoption of renewable energy such as solar energy by households by enabling house owners to sell excess electricity generated from their homes to TNB (Tenaga Nasional Berhad), for example. For every 1 kWh, house owners could get between RM1.20 to 1.23. Moreover, homes with solar PV would obtain an additional 26 cents. It is thus possible for house owners to earn as much as RM700 per month if they could generate as much as 4kW peak of electricity from their homes.

Although Malaysia is the world's fourth largest PV modules producer, solar technology is ironically not adopted widely here. One reason is the cost of installing PV systems in Malaysia is expensive, even though the cost is falling at a rate of more than 10% per year. In 2005, for instance, the cost of PV system per kW peak was RM31,410, falling to RM24,970 in 2007, and to RM20,439 in 2009. Today, the cost has reduced to about RM15,000 per kW peak – a rate still unaffordable or impractical to most Malaysians.

There are four kinds of PV solar panels available in Malaysia: mono-crystalline silicon (Mc-Si), poly-crystalline silicon (Pc-Si), copper-indium-diselenide (CIS), and thin film amorphous silicon (A-Si). A study by UKM showed that none of these solar panel types had more than 10% efficiency in converting solar energy into electricity. The module efficiency for Mc-Si, Pc-Si, CIS, and A-Si were measured at 6.9, 5.1, 4.0, and 2.2%, respectively. In addition, Mc-Si and Pc-Si performed best under clear skies, whereas CIS and A-Si did better under cloudy skies.

The low efficiency of PV panels sold in Malaysia is bad news because a great deal (more than 90%) of solar energy is unused for electricity generation. The implication is serious: a very large area of solar panels, costs notwithstanding, would be required for utilizing solar energy for electricity. How much land area? Let's calculate.

1 MW of electrical generation is equivalent to:

1,000,000 W x 365 days x 24 hours = 8.76 billion Wh

As stated earlier, Malaysia receives 4,000 to 5,000 Wh per sq. m per day, taking 4,500 Wh per sq. m per day on average. In a year, this daily average is equivalent to:

4,500 Wh per sq. m x 365 days = 1.642 million Wh per sq. m

However, since the highest solar panel efficiency is nearly 7% (for Mc-Si), this means the total amount of solar radiation energy used for electricity generation is only:

1.642 million Wh per sq. m x 0.07 = 114,975 Wh per sq. m

Thus, the total land area needed for solar panels is:

8.76 billion Wh / 114,975 Wh per sq. m = 76,190.48 sq. m

This means for every 1 MW of electricity required, about 76,000 sq. m of land area in Malaysia is required for harvesting solar energy. To meet even 1% of Malaysia's electricity demand will require a land area of 12 square kilometers for PV panels and at a cost of about **RM20 trillion**!

Consequently, solar energy, as well as other renewable energy, cannot be a major contributor for electricity generation in Malaysia. This would be true until solar technologies become affordable enough and the technologies become much more efficient in electricity generation from solar energy. At the moment, solar energy, at best, could supplement Malaysia's energy supply.

Solar technology research at Uni. Putra Malaysia (photo from upm.edu.my)

References

- "Just how much land does solar power need?" in New Scientist. Environment section. July 27, 2007
- "Power up cleanly" by Meng Yew Chong, The Star. May 24, 2011
- "Solar vs nuclear: Giving solar a chance" by Deborah Loh, The Nut Graph. July 7, 2010
- Mekhilefa, S., Safari, A., Mustaffaa, W.E.S., Saidurb, R., Omara, R., Younis, M.A.A. 2012. Solar energy in Malaysia: Current state and prospects. Renewable and Sustainable Energy Reviews, 16: 386– 396