SUSTAINABLE WELLBEING INDICATORS FOR MALAYSIA AN ALTERNATIVE TO CURRENT MALAYSIA WELLBEING INDICATORS

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ABSTRACT: This study is a part of an ongoing research which aims to discover appropriate social indicators in determining the sustainable well-being of Malaysians. The indicators will serve as an alternative to the Malaysia Quality of Life Indicators (MQLI), published in 1999, 2002, 2004 and 2011, as well as the current Malaysia Well-being Indicators (MWI) published in 2013, developed by the Economic Planning Unit of Malaysia (EPU). This paper aims to highlight and discuss the issues observed from the government's current approach in measuring the country's quality of life and well-being. Additionally, potential solution will also be recommended. The MQLI and MWI gauge the commitment towards providing a holistic approach to an all-inclusive and a well-balanced development concentrating on all aspects of life which includes economic, social and psychological aspects. Indicators and components selected for every ensuing report have been ever-changing. EPU's continuous efforts in gauging Malaysia well-being through regularly revised social indicators are commendable. Some of the indicators though in line with the commitment of the government to improve the well-being of Malaysia, but they hardly measure the outcome of the commitments. This paper further discussed the issues found in the Malaysia Quality of Life and Well-being Reports in an attempt to propose an alternative solution. The solution was drawn from Hierarchy of Needs that prioritise social development before pursuing other needs. The study anticipates that by recognising and fulfilling the hierarchy of needs of the citizens, sustainable well-being is attainable.
Keywords: social indicators, hierarchy of needs, sustainable well-being

INTRODUCTION

The Economic Planning Unit Malaysia (EPU) is the principal government agency in the Prime Minister's Department tasked with preparing and publishing Malaysia Quality of Life Reports (MQLR) and Malaysia Well-being Report (MWR). The first report published by EPU to gauge the selected social indicators was MQLR 1999. The second report was MQLR 2002, followed by MQLR 2004 and MQLR 2011. MWR 2013 was the latest report published (MQLR, 2002; MQLR, 2004; MQLR 2011; MWR, 2013). MQLR and MWR are EPU's committed approaches to measure the impact of economic development on Malaysia's social progress through a set of social indicators categorised under economic well-being and social well-being. The numbers of indicators and components used from the earliest to the latest reports have undergone many changes. In the latest report, 14 components were used to demonstrate the different aspects of social development in Malaysia. Five of the components, namely, transport, communication, education, income and distribution, and working life represent economic well-being. The remaining nine indicators, namely, housing, leisure, governance, public safety, social participation, culture, health, environment, and family represent social well-being. However, the selection of the indicators in representing the components of well-being in terms of appropriateness and comprehensiveness is still questionable. Additionally, EPU's supposition that sustainability of social development highly depends on the increase in GDP is somewhat arguable. This study responds to EPU's uncertainty on what matters most to the citizens as mentioned in one of the latest MWR presentation as well as in some of the published quality of life and well-being reports.

THE CHARACTERISTICS AND DEVELOPMENT OF SOCIAL INDICATORS

Development of social indicators is a two-way process. The indicators stem from policy objectives but they also concretise and shape the policies in return. So, developing indicators cannot be a purely technical or scientific process. Rather, it should be an open communication and policy process (Baird, 2011). For indicators to reflect the components that they are measuring, indicators must be simple and directionally clear. To be simple, the number of indicators must be limited, and the method of

calculating them must be transparent. Directionally clear means that they should indicate items and trends obviously relevant in terms of importance for sustainability, sensitivity and ability to signal progress or the absence of progress (Baird, 2011).

Studies on social indicators or development indicators address that the dimension of indicators exists in two ways. There are objective indicators and subjective indicators. Both objective and subjective indicators are measured quantitatively or qualitatively based on the nature of the data and the purpose of the measurement (Bauer, 1966). Objective indicators alone cannot sufficiently measure a component without subjective indicators (Bauer, 1966; Rapley, 2003). Subjective well-being is a system of decisions that allows researchers to observe, predict and manipulate the consequence of changes in the society (Rapley, 2003).

Indicators can be direct or indirect. Indirect indicators are also known as proxy indicators. Direct indicators correspond to the program outcome precisely at any performance level. For example, housing ownership rate is a direct measure of low-cost housing programmes. Alternatively, indirect or proxy indicators are utilized to show change or results when direct measures are not possible. For instance, number of cinema goers is an indirect measure of leisure activities (Clifford and Rixford, 1998).

Clifford and Rixford (1998) indicate that there are six levels of measurement that performance indicators can demonstrate. At the bottom of the hierarchy are the input indicators that only measure the resources provided by a program or a component, such as the percentage of graduate school teachers. Process indicators measure the progress of activities in a determined programme and the way the activities are carried out, such as school participation rate. Output indicators recognise the quantity, quality, and timeliness of the products, goods or services of the implemented programme, such as school survival rate. Outcome indicators indicate the intermediate results generated by the programme outputs, such as national average grades for UPSR, PMR or SPM. They usually correspond to any changes in people's behaviour as a result of a programme. Finally, at the top of the hierarchy are the impact indicators that measure the long-term results from the output of a certain program or component, such as literacy rate. For Stern, Wares, Orzell and O'Sullivan (2014), whether to utilise input or output indices, this depends on the availability of data and specific problems addressed. Table 1 shows the mixtures of indicators used by EPU to represent the components of well-being in MWR 2013.

The movement of social indicator exploration can be traced back to as early as the late 17th century (Leiby, 1960; Cobb and Rixford, 1998). Historical events relating to the social indicator movement occurred from late 17th century to late 18th century and they provided significant contributions to understand how social indicators are recognised presently (Campbell, Converse and Rogers, 1976; Cobb and Rixford, 1998; Land, 1999). The lessons from the past informed current practitioners of four conflicting principles in managing social indicators (Cobb and Rixford, 1998) are: (1) The first principle recognises the distinction between prescriptive indicators and descriptive indicators. Prescriptive indicators refer to indicators that provide guidance for improvement. Descriptive indicators refer to indicators that highlight the conditions that could have been overlooked. (2) The second principle recognises the distinction between deductive method and inductive method. The deductive method produces indicators based on abstract model for a testable hypothesis. Inductive method compiles the data on the condition of the society before producing generalisations. (3) The third principle recognises the distinction between an impartial process (also known as non-partisanship approach) and an ideological process (also known as partisanship approach). The impartial process or popularly known as pseudo-objectivity suggests that the data gathered from the social indicators are solely the result of experimentation and are not subjected to any feelings or opinions. The ideological process suggests that the data presented favours one side of efforts or opinions and disregard other possibilities that may contribute to the social condition. (4) The fourth principle recognises the distinction between two purposes of the social indicators that are tools for understanding and tools for practical action. Academicians utilise social indicators as tools to enhance understanding, hence, it is believed that the data must be compiled for a certain period of time. This

means that there is a timeframe to which data are reliable to be assessed. For academicians, data that are released before the allocated time frame are premature. On the contrary, practitioners need to make judgement, thus, up-to-date or allegedly premature data can be useful.

HIERARCHY OF NEEDS

The hierarchy of needs introduced by Abraham Maslow in 1943 has identified the stages of human growth. The stages of human growth often depicted in a hierarchical pyramid are recognized in five levels of motivational needs. The five motivational needs are also categorized under basic needs and growth needs. The basic needs or also known as deficiency needs refer to the Biological and Physiological Needs, Safety Needs, Love and Belonging Needs and Esteem Needs, arranged from most urgent to fulfil. The growth needs refer to self-actualization. In order to motivate people, the basic or the deficiency needs must first be fulfilled. The longer the duration that the deficiency needs are denied, the more urgent it became to fulfil them. Maslow (1943) believed that for a person to progress to the higher level of the hierarchy of needs, the lower level of the deficiency needs has to be fulfilled. Once the person is satisfied with the fulfilment of the lower level of the deviancy needs, he or she can progress to the next level and ultimately to the growth needs, that is self-actualization. During the 1960s and 1970s, the five stages of hierarchy needs extend to eight stages of hierarchy needs. Maslow (1968) slotted in Cognitive Needs and Aesthetic Needs respectively between deficiency needs and growth needs. Later, Maslow (1970) added transcendence needs as the eighth and final stage to the hierarchy of needs.

Social Progress Index (SPI) is a commendable example of social indicators that are modelled based on Maslow's hierarchy of needs. In developing the social indicators, Stern et al., (2014) inquired three meaningful questions: (i) Does a country provide for its people's most essential needs? (ii) Are the building blocks in place for individuals and communities to enhance and sustain wellbeing? (iii) Is there opportunity for all individuals to reach their full potential?. The three dimensions of SPI are (i) Basic Human Needs; (ii) Foundation of Human Needs; and (iii) Opportunity, and they represent the components and indicators of SPI.

ISSUES IN MALAYSIA QUALITY OF LIFE AND WELL-BEING REPORTS

The selection and organization of indicators and components in MQLR and MWR are questionable. Four issues were discovered in the quality of life and well-being reports.First, there is a mixture of input, process and output indicators that fail to interpret the true performance of well-being components (refer to Table 1). The hierarchy of performance indicators varies from input indicators that measure quantity, quality and timeliness of services provided, to impact indicators that measure quality and quantity of long term results. In between input indicators and impact indicators are process indicators, output indicators, and outcome indicators. Process indicators measure progress of the programs implemented. Output indicators measure short-term results of the programs implemented. Outcome indicators measure the intermediate results that allow a projection to determine if the desired outcome has been achieved. The selection of the indicators is dependent on the availability of data, and specific problems addressed. Some of the components in the MWI, such as the housing component lack output indicators. Consequently, the performance of housing component is unable to indicate if housing concerns in Malaysia are heading towards improvement or otherwise. One of the examples is the indicator of low-cost housing provision, which recognise government commitments in resolving housing ownerships in Malaysia. Unfortunately, the indicator cannot confirm if the housing ownership issues are improving or worsening. An alternative or additional indicator could be the output indicator, housing ownership rate, which is not available from the report.

Second, the absence of a hierarchy of needs in structuring the objective indicators has clouded priorities in measuring well-being and sustainability. The components and indicators of the MQLI and MWI reports across the years have been ever changing in terms of quantity and measurement. EPU's efforts in revising the components and indicators from time to time are creditable. Still, without

recognising what is most needed by the nation, the priorities of the efforts in gauging well-being seems unclear. EPU defines QoL as the improvement of standard of living that exceeds the fulfilment of basic needs and psychological needs towards achieving well-being. In MWI 2013, well-being refers to acquired benefits and life satisfaction associated with social, environmental and economic aspects that elevate quality of life. Putting both definitions together, it is the improvement of standard of living by balancing resources and basic needs towards achieving social, environmental and economic improvements for the country and the citizens. In an attempt to achieve the aspiration, components and indicators are increasing across the reports. Since the decisions on the indicator selection is based on three intertwining criteria: i) importance, ii) accuracy, and iii) data availability, the number of components and indicators will undoubtedly continue to grow in future reports as more data become available. If control is not exercised over the selection of indicators based on (i) survival needs, (ii) enhancement to sustain QoL and (iii) conditions to which the nation can reach its full potential, future assessment of well-being will not be able to fulfil the priorities of the nations.

Third, the absence of reliable subjective well-being indicators that can capture non-quantifiable aspects of well-being has disregarded intangible aspects of well-being. This is particularly true for measuring human relationships with other humans and the environment. Well-being is currently measured through material goods and services provided. The satisfaction of the citizens is often neglected. Surprisingly in MQLI 2002, subjective indicators were supplemented as an effort of the government to increase transparency to the public. However, out of 59 subjective indicators, there were only four indicators which recognise satisfaction in quality of life that can be related to the environment (rivers, forests, air and drinking water). Consequently, the notion of sustainability was somewhat biased towards societal well-being (Hezri, 2004). Sustainable well-being theory on subjective well-being suggests that personal well-being exists interconnectedness with humans and is interconnected with the environment. Sustainable well-being is more than just satisfaction with the environment or the material goods, rather, it is the collective balance of fulfilment shared with other human beings and the environment.

Fourth, there exists narrow understanding of progress due to strong reliance on the correlation between components of well-being and GDP. EPU claimed that fluctuations of well-being indices in MQLI and MWI depended on economic growth and levels of income. Due to this concept, the progress of every well-being component in MWI is observed as good when they are positively correlated with GDP. If the component is negatively correlated with GDP, they are observed as deteriorating. In other words, improvement in social development is due to increase in GDP. This has led to a narrow and misleading understanding of social and economic progress. The typical measurement of GDP is by adding (i) national personal consumption expenditures, that is the payment by households for goods and services, (ii) government expenditures, that is the public spending on the provision of goods and services, infrastructure, debts and others, and (iii) net capital formation, that is the increased values of the nations' total stock of monetized capital goods. Since the introduction of GDP, economists familiar with GDP have long emphasised that GDP is only a measure of the progress of economic activity and not economic well-being. Additionally, there are still many economic activities excluded from GDP. This includes depletion of natural resources, voluntary work, social capital formed through a healthy family unit, costs of crimes and many more. Additionally, out of 14 components of well-being in MWR 2013, family life component, and environment component negatively correlate with GDP. Social participation component and health component also did not show strong positive or negative correlation with GDP. Although economic growth partially contributes in improving well-being, GDP in this sense is unlikely to be the best representation of economic growth.

Table 1 shows Malaysia Well-being Indicators arranged among types of social indicators. The use of a mixture of indicators can lead to misunderstanding between government's commitments and actual social reality. The input indicators are the resources. The process indicators are the actions or quantities of the inputs. Output indicators are the products or services generated from the process. Outcome indicators are the medium-term results, or products and services to specific beneficiaries. Impact indicators are the long-term results of achieving specific outcomes.

Table 1: Malaysia Wellbeing Indicators arranged in Types of Indicators

Components of MWI	**Types of Indicators**				
	Input	**Process**	**Output**	**Outcome**	**Impact**
Transport	- Road Development Index (RDI) (+) - Road length per capita (km) (+)	- Private motorcar and motorcycle (/'000 pop.) (+) - Commercial vehicles (/'000 pop.) (+) - Rail ridership (million) (+)	*Unavailable*	*Unavailable*	
Communi-cation	- # hotspot locations (+)	- Fixed and mobile telephone line subscriptions (per '000 pop.) (+) - Internet subscribers (per '000 pop.) (+) - # domain name (per '000 pop.) (+)	*Unavailable*	*Unavailable*	
Education	- % graduate teachers in primary schools (+) - % graduate teachers in secondary schools (+) - # lecturers with PhD (+)	- Pre-school participation rate (+) - Primary school participation rate (+) - Secondary school participation rate (+) - Tertiary participation rate (+)	- Primary education survival rate(+) - Secondary education survival rate (+)	- National Average Grade (UPSR)(+) - National Average Grade (SPM)(+)	- Literacy rate (+)
Income and Distribution	*Unavailable*	- Real per capita income (GNP) (RM) (+) - Gini coefficient based on disposable income (-)	- Incidence of poverty (-)		
Working Life	*Unavailable*	- Trade disputes (-) - Average working hours (-)	- Man-days lost due to industrial action ('000) (-) - Industrial accidents (-)	*Unavailable*	
Governance	*Unavailable*	- % cases solved by Biro Pengaduan Awam (+)	- % e-Filing users (+) - # e-payment transactions (million) (+)	- % corruption cases prosecuted (+)	*Unavailable*
Housing	- % low-cost housing units to bottom 40% (+)	- % households with treated water(+) - % households with electricity (+) - % households with garbage collection services (-)	- Crowdedness (no. of persons per room) (-)	*Unavailable*	*Unavailable*
Leisure	*Unavailable*		- # households with paid TV subscription ('000) (+) - Domestic hotel guests (per '000 pop.) (+) - Recreational parks visitors (per '000 pop.) (+) - Cinema goers (per '000 pop.) (+)	*Unavailable*	*Unavailable*
Culture	*Unavailable*		- Membership in public libraries (per '000 pop.)(+) - # Istana Budaya visitors (per '000 pop.) (+) - # Museum visitors (per '000 pop.) (+) - # Kompleks Kraf visitors (per '000 pop.)(+)	*Unavailable*	*Unavailable*
Public Safety	*Unavailable*	*Unavailable*	- Road accidents (per '000 vehicles) (-) - Crime rate (per '000 pop.) (-)	*Unavailable*	*Unavailable*
Social Participation	*Unavailable*	*Unavailable*	- % registered voters (per pop. aged 21 years and above) (+) - # registered non-profit organisations (per '000 pop.) (+) - # registered residents' associations (+) - Membership in RELA and RakanCop (per '000 pop.)(+) -	*Unavailable*	*Unavailable*

Health	- # beds in hospitals (per '000 pop.) (+) - Doctor to pop. ratio(-)	- Hospital waiting time for out-patients (minute) (-)	*Unavailable*	- Infant mortality rate (per 1,000 live births)(-) - Maternal mortality rate (per 100,000 live births) (-) - Non-communi-cable disease cases ('000 pop.) (-)	Life expectancy at birth (+)
Environment	*Unavailable*	- Quantity of scheduled waste generated (tonnes/year)/pop. (-) - Maximum mean temperature (°C) (-)	- Air quality (% station with API<50) (+) - Water quality (% clean river monitored) (+) - % forested land (+)	*Unavailable*	
Family Life	*Unavailable*	*Unavailable*	- Mean monthly household income (RM)(+) - Household debt per capita (RM) (+)	- Domestic violence cases (per '000 pop.) (-) - Divorce rate (% pop. aged 18 and above) (-) - Domestic violence cases (per '000 pop.) (-) - Juvenile crimes (% pop. aged 10 -18) (-)	Dependency ratio (-)

POTENTIAL SOLUTION TO MALAYSIA WELL-BEING INDICATORS

Table 2 shows an attempt to rethink the available social indicators in the latest Malaysia Well-being Report through a set of dimensions and components based on the hierarchy of needs. The new social indicators are selective and some of the indicators in Malaysia Well-being Report are excluded.
There exist three dimensions of well-being that need to be recognised in gauging the performance of a nation. They are the (i) basic necessities, which measure the survival resources of the nation, (ii) complimentary needs, which measure whether the society is able to improve and sustain their lives, and (iii) desired opportunities, which measure the opportunity and freedom of the citizens to make their own choices. The three dimensions of sustainable well-being provide a better focus in fulfilling necessities of the citizens. Fulfilment of basic or survival necessities of the nation enable citizens to attempt to shift their priority from focussing on material fulfilments to focusing on sustainable livelihoods (Stern et al., 2014).

CONCLUSION AND FUTURE DIRECTION

This paper revised the current approach in measuring Malaysia well-being. Four major issues discovered in the MWI are (i) mixtures of input and output indicators which made it difficult to interpret true progress of well-being, (ii) absence of a hierarchy of needs to prioritise more important components and indicators, (iii) absence of reliable subjective well-being indicators that can capture non-quantifiable aspects of well-being, and (iv) narrow conceptualisation of national progress with strong reliance on GDP growth. In light of these issues, an alternative viewpoint is proposed on the way to understand national progress. Economic sustainability can also be contributed by social growth. It is believed that social development can play a part in long-term economic success. The direction for future study is to revise and improve the proposed alternative and discover the subjective social indicators in realising sustainable well-being.

Table 2: Potential Arrangement of Social Indicators

	Components	Potential Indicators From Existing Indicators of MWI and MQLR
Basic Necessities	Nourishment and Essential Medical Care	Life expectancy at birth (+) Infant mortality rate (per 1,000 live births)(-) Maternal mortality rate (per 100,000 live births) (-)
	Water and Sanitation	Percentage of housing units with piped water (+) Percentage of housing units with treated water (+) Percentage of households with garbage collection services (-)
	Shelter and Housing	Average housing price (-) Average Price of Medium-Cost House to Average Household Income (-) Percentage of low-cost houses to total low-income households (+) Percentage of low-cost housing units to bottom 40% (+) Percentage of housing units with electricity (+) Crowdedness (no.of persons per room) (-)
	Safety and Security	Crime rate (per '000 population) (-) Road accidents (per '000 vehicles) (-)
Complimentary Needs	Access to Elemental Education	Primary and Secondary school teacher-student ratio (-) Pre-school participation rate (+) Primary and Secondary school participation rate (+) Literacy rate (+) Percentage of graduate teachers in primary and secondary schools (+) National average grade (UPSR and SPM)(+) Primary and Secondary education survival rate(+)
	Information Transmission and Communication	Fixed and mobile telephone line subscriptions (+) Internet subscribers (per '000 population) (+) Number of hotspot locations (+) Number of domain name (per '000 population) (+)
	Health and Basic Wellbeing	Non-communicable disease cases ('000 population) (-) Number of beds in hospitals (per '000 population) (+) Doctor to population ratio(-) Hospital waiting time for out-patients (minute) (-)
	Sustainable Environment	Air quality (Percentage of station with API<50) (+) Water quality (Percentage of clean river monitored) (+) Percentage of forested land (+) Quantity of scheduled waste generated (tonnes/year) /population (-) Maximum mean temperature (°C) (-)
Desired Opportunities	Access to Advanced Education	Tertiary education participation rate (+) Number of lecturers with Ph.D (+)
	Personal Rights	Percentage of registered voters (+) Number of registered non-profit organizations (per '000 population) (+) Number of registered residents' associations (+) Membership In Selected Voluntary Organizations; Malaysian Red Crescent Society and St. John Ambulance Malaysia (per population aged 18 - 50) (+) Membership in RELA and Rakan Cop (per '000 population) (+)
	Freedom of Choice	Percentage of corruption cases prosecuted (+) Number of e-payment transactions (million) (+) Percentage of cases solved by Biro Pengaduan Awam (+) Percentage of e-Filing users (+)

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