

MALAYSIAN URBAN INDICATORS NETWORK (MURNInet)
PLANNING INITIATIVE

1.0 Background

Rapid growth of population and its concentration in cities around the world are affecting the long term outlook for humanity. As we brave through the 21st Century, the urban system in Malaysia has become part of the global social, economic and political matrix confronted by rapid growth. Cities in Malaysia as in the rest of the world are increasingly faced by ever changing development. For better or for worse, the development of contemporary societies will depend largely on improved understanding in managing the growth of cities. Cities will increasingly become the test bed for the adequacy of political institutions, for the performance of government agencies and for the effectiveness of programmes to combat social exclusion, to enhance the environment and to promote economic development. There is a need to build national, state and local capacity to collect useful information on urban conditions and trends, to convert that information knowledge through appropriate analytical techniques, and to apply that knowledge in formulating and modifying urban policies and programmes. It is the gap between policy making and data that the Malaysian Urban Indicators Network (MURNInet) tries to address.

MURNInet is developed by the **Federal Department of Town and Country Planning Peninsular Malaysia**, Ministry of Housing and Local Government Malaysia. It is an approach to measure and evaluate the sustainability of Malaysian towns and cities.

The objectives of MURNInet are:

- a. To determine the level of sustainability for each town in the country based on the Malaysian Urban Indicators;

- b. To identify the strength and weaknesses of each town according to the indicators;
- c. To suggest the opportunity for improvement in order to upgrade the level of sustainability; and
- d. To establish MURNInet as a survey tool for various roles including administration and technical, assisting formation of political objectives, public participation and also monitoring action plan implementation.

The research on Malaysian Urban Indicators started in 1998, two years after *The Habitat Agenda Istanbul 1996*. In 2002, 6 (six) cities/towns were selected as pioneer projects on the application of MURNInet. In 2004, 8 cities took part in the application of MURNInet, 14 cities in 2005 and 2006, 42 towns and cities in 2007, 48 towns and cities in 2008 and 87 towns and cities in 2009.

2.0 Description of the Initiative or Project

The Federal Department of Town and Country Planning Peninsular Malaysia has formulated a set of Urban Indicators to measure the minimum quality and life standard that has to be achieved by each town or city in the country.

The Malaysian Urban Indicators Network (MURNInet) application system was created based on a computer network designed to analyse present urban conditions, effects of development, to survey temporal changes and formulate sustainable urban scenarios for the future based on fixed standards.

There are 56 urban indicators which were formulated based on 11 planning components as follows:

- a. Demography;
- b. Housing;
- c. Economy;
- d. Utility and Infrastructure;

- e. Public Facility;
- f. Environment;
- g. Sociology and Social Impact;
- h. Landuse;
- i. Tourism and Heritage;
- j. Transportation and Accessibility; and
- k. Management and Finance.

The list of indicators is in *Appendix 1*.

The Criteria for the indicators are as follows:

- a. Applicable for all urban hierarchy and size;
- b. Measurable through data collected at local or district level;
- c. Clear relationship with policy issues under consideration;
- d. Readily gathered and cost effective to collect them;
- e. Data able to show the magnitude of problems;
- f. Data is reliable; and
- g. Clear definition and related to objective/issue targeted.

The strategy is to work towards betterment of the lives of city dwellers by directly improving the base of information for participatory decision making for sustainable human settlement development in Malaysia.

The path towards an implementable set of urban indicators for Malaysia begins with the identification of a set of key urban indicators, which will be capable of measuring the performance of Malaysian cities. The applicable data sources for the selected indicators will be identified and methodologies for collections will be developed and tested.

The first output of the process will result in a real set of urban indicators values for selected cities. The second output will consist of a well-developed, realistic and implementable capacity building programme for key national, state and local stakeholders which have been tested in a number of selected

cities. The programme will build on the existing capacity and foster innovative approaches for improvement in data collection, management and analysis and application of indicators policy and planning processes.

As one of the first products of the network, each city will produce a report on the state of development of its city. It will also include a section on good practice. Relevant information includes 'State of City Reports', related articles, description of Best Practices, summary of urban indicator databases etc which will be published and will also be available on the internet.

3.0 Main Partners

All local authorities in Malaysia (Refer to *Appendix 2*)

4.0 Impact

A Sustainable City or Town is a city that is able to provide the basic needs of city inhabitants such as infrastructure, civic amenities, health and medical care, housing, education, transportation, employment, good governance and ensure the populations needs are met benefiting all sectors of society.

TO FEDERAL and STATE GOVERNMENT

- a. To evaluate City Performance;
- b. To improve services for the public;
- c. The indicators can be made as a basic evaluation to upgrade an urban area's status (*district/municipal/city*); and
- d. Urban Indicators can be made as a measurement for government to channel investment.

TO LOCAL AUTHORITY

- a. To identify problems using indicators, urban quality issues and addressing those issues;
- b. To improve service levels to the public; and
- c. To provide feed-back to National Integrity Plan target. ie: *Social and Environmental Commitment*

TO LOCAL COMMUNITY and PUBLIC

To realise that the government is sensitive towards public's needs from MURNInet indicators which measure the service level, facilities level in urban areas or local authority.

5.0 Sustainability

To achieve sustainable development, urban development needs to balance economic growth with social and environmental well being including all aspects of urban life addressing housing, education, transportation, public safety and the environment. Malaysian Urban Indicators are used to measure the level of sustainability of each town based on the minimum quality of life standards.

6.0 Transferability and Upscaling

The development of MURNInet by the Federal Department of Town and Country Planning Peninsular Malaysia has been adopted and adapted by a few local authorities notably the Kuala Lumpur City Hall and Putrajaya Corporation. These two are big local authorities in the urban area of the Klang Valley and it is very important for them to measure their own level of sustainability to serve the needs of their local community. On top of the 56 indicators formulated by the MURNInet system, they have formulated an additional number of indicators to suit their own needs which include aspects on social, economic, environment and physical.

7.0 Innovation

Gerbang MURNInet (Web-based Portal):

In 2007, a web-based portal (Gerbang MURNInet) was developed and introduced by the Federal Department of Town and Country Planning Peninsular Malaysia. The main purpose of this portal was:

- a) To centralise data and information of all participating towns and cities in one centre ie: Federal Department of Town and Country Planning Peninsular Malaysia's server;
- b) To provide easy access for data input by each local authority;
- c) To improve monitoring and management process which involved large number of cities and towns all over the country;
- d) To encourage and improve the sharing of information among towns and cities on their performance; and
- e) To provide public access concerning towns or cities achievement in sustainable development.

The portal can be easily accessed by all local authorities through the Department's website ie. www.townplan.gov.my/murninet. Nevertheless, the access is being controlled via specific User Name and Password. This is to ensure that all data and information are protected. Data base is only accessible by each local authority for their own town or city but general results of other cities and towns can be viewed by any local authority.

8.0 Recognition of the Initiative

MURNInet has been recognised by the National Physical Planning Council which is the highest authority on planning and chaired by the Prime Minister of Malaysia as a very important tool to measure sustainability of towns and cities in the country. The National Physical Planning Council is regularly updated on the status of MURNInet implementation as a check on the sustainability efforts by all local authorities in Malaysia. The Cabinet of Malaysia has also recognised MURNInet for the same reason and has recently been informed on its implementation status.

9.0 Conclusion

The Malaysian Urban Indicators Network (MURNInet) with its sustainable development indicators for Malaysian towns and cities is expected to contribute towards indicating if the cities are showing progress towards achieving sustainable urban development objectives. Most importantly, it should also provide the much needed quality and accurate knowledge and information at the city level for formulating effective urban policies and programmes towards fulfilling the desired urban objectives.

Urban indicators programmes were endorsed by the HABITAT Agenda in 1996. It is aimed at expanding the base of information for participatory decision making process towards sustainable human settlement. The Government of Malaysia is committed to the HABITAT Agenda and this paper has described Malaysia's initial efforts in establishing its own urban indicators programme.

LIST OF INDICATORS

NO	SECTOR	FOCUS OF SECTOR	INDICATOR
1	Population	Total number of population in a city or town is proportionate with its carrying capacity of its infrastructure, social facilities, economy and environment.	<ul style="list-style-type: none"> ▪ Urbanization Rate ▪ Population Density ▪ Population Growth Rate ▪ Median Age
2	Housing	Adequate housing to support increase in population and satisfy individual needs.	<ul style="list-style-type: none"> ▪ Average Household Size ▪ Housing Price to Income Ratio ▪ Housing Rental Ratio Against Income ▪ Individual Floor Space Ratio (measure overcrowding) ▪ Percentages of Non Selling Housing Stock (overhang issues)
3	Economy	Eradication of poverty, increase productivity of urban areas, increase employment opportunities to promote further continuous growth of urban areas.	<ul style="list-style-type: none"> ▪ Unemployment Rate ▪ Job Growth Rate ▪ Labour Growth Rate ▪ Poverty Level ▪ Income Distribution (Gini Coefficient)
4	Utility and Infrastructure	Water supply, electricity and telecommunication supplies that is efficient and adequate to ensure the health and well being of local residents.	<ul style="list-style-type: none"> ▪ Daily Water Consumption Rate of Every Population ▪ Water loss ▪ Percentage of Flooding Area ▪ Total Daily Garbage Collection ▪ Percentage of Houses Serviced by Centralised Sewerage

NO	SECTOR	FOCUS OF SECTOR	INDICATOR
5	Public Facilities	Availability of adequate public and recreational facilities by the authorities need to be in line with population growth.	<ul style="list-style-type: none"> ▪ Doctors and Population Ratio ▪ Total Public Open Space Per 1000 Population. ▪ Number of Primary School Children Per Teacher. ▪ Number of Kindergarten Per Total Population Number of Civic. ▪ Halls Per Total Population
6	Environment	Sustainable environment concept to be based on the balance between development and environment.	<ul style="list-style-type: none"> ▪ Percentage of Financial Budget for Environmental Management ▪ Number of Asthma Cases per 10,000 Population ▪ Percentage of Budget Allocation for Landscape Program ▪ River Water Quality Index ▪ Percentage of Area that Received Waste Disposal Services ▪ Percentage of Solid Waste That Has Been Recycle ▪ Number of Cases Reported On Noise Complaints Cases ▪ Number of Water Borne and Food Diseases Per 10,000 Population ▪ Air Quality Index
7	Sociology and Social Impact	Seen from the quality of life aspect (peaceful, safety, health and cleanliness (without pollution)	<ul style="list-style-type: none"> ▪ Percentage of The Population Involved In Community Program ▪ The Level of Health Quality Services ▪ Crime Index Per 10,000 Population ▪ Ratio of Juvenile Case Per 1,000 Population ▪ Ratio of Arrests Due To Social Ills Per 1,000 Population ▪ Divorce Rate Per 1,000 Population

NO	SECTOR	FOCUS OF SECTOR	INDICATOR
8	Land Use	Land use that is planned and implemented within the carrying capacity of respective area.	<ul style="list-style-type: none"> ▪ Percentage of C.F.O Approvals ▪ Percentage of Land For Public Facilities ▪ Percentage of Residential Floor Space Area In City Centre
9	Tourism and Heritage	Tourism and Heritage element need proper and adequate maintenance for sustainable.	<ul style="list-style-type: none"> ▪ Percentage of Maintenance Expenditure Heritage Elements and Urban ▪ Beautifi cation ▪ Percentage of Attraction Area
10	Transportation	Sustainable transportation characteristics are safety, comfort and effi cient from the aspect of economy and power usage while minimizing environmental pollution.	<ul style="list-style-type: none"> ▪ Percentage of Public Bus Users ▪ The Quality Level of Public Bus Services ▪ Percentage of Expenditure To Increase Accessibility System ▪ Percentage of Single Occupancy Vehicles That Enter The City Centre ▪ During Morning Peak Hours ▪ Ratio of Road Accident Cases Per 10,000
11	Management and Finance	Sustainable Local Authority is an organization that can adjust and adapt for the long term.	<ul style="list-style-type: none"> ▪ Local Authority Capita Income Revenue ▪ Tax Rate Collected ▪ Cash Flow Ratio As Compared To Emoluments ▪ Development Expenditure Per Capita ▪ Administration and Professional Offi cers Ratio ▪ Percentage of Expenditure As Compared To Overall Revenue

LIST OF LOCAL AUTHORITIES IN MALAYSIA

No.	State/Local Authority
Negeri Sembilan	
1.	Seremban Municipal Council
2.	Port Dickson Municipal Council
3.	Nilai Municipal Council
4.	Jempol District Council
5.	Kuala Pilah District Council
6.	Rembau District Council
7.	Tampin District Council
8.	Jelebu District Council
Melaka	
9.	Historical Melaka City Council
10.	Municipal Council Hang Tuah Jaya
11.	Alor Gajah Municipal Council
12.	Jasin Municipal Council
Johor	
13.	Johor Bahru City Council
14.	Batu Pahat Municipal Council
15.	Johor Bahru Tengah Municipal Council
16.	Kluang Municipal Council
17.	Muar Municipal Council
18.	Kulai Municipal Council
19.	Pasir Gudang Municipal Council
20.	Tangkak District Council
21.	Labis District Council
22.	Simpang Renggam District Council
23.	Yong Peng District Council
24.	Segamat District Council
25.	Pontian District Council
26.	Kota Tinggi District Council
27.	Mersing District Council
Pahang	
28.	Kuantan Municipal Council
29.	Temerloh Municipal Council

No.	State/Local Authority
30.	Bentong Municipal Council
31.	Bera District Council
32.	Cameron Highlands District Council
33.	Jerantut District Council
34.	Lipis District Council
35.	Maran District Council
36.	Pekan District Council
37.	Raub District Council
38.	Rompin District Council
Terengganu	
39.	Kuala Terengganu City Council
40.	Kemaman Municipal Council
41.	Besut District Council
42.	Dungun Municipal Council
43.	Hulu Terengganu District Council
44.	Marang District Council
45.	Setiu District Council
Kelantan	
46.	Kota Baharu Municipal Council
47.	Gua Musang District Council
48.	Bachok District Council
49.	Jeli District Council
50.	Ketereh District Council
51.	Pasir Mas District Council
52.	Pasir Puteh District Council
53.	Tanah Merah District Council
54.	Tumpat District Council
55.	Machang District Council
56.	Dabong District Council
57.	Kuala Krai District Council
Putrajaya	
58.	Putrajaya Corporation
Wilayah Persekutuan Kuala Lumpur	
59.	Kuala Lumpur City Hall
Selangor	
60.	Shah Alam City Council

No.	State/Local Authority
61.	Petaling Jaya City Council
62.	Ampang Jaya Municipal Council
63.	Kajang Municipal Council
64.	Klang Municipal Council
65.	Selayang Municipal Council
66.	Subang Jaya Municipal Council
67.	Sepang Municipal Council
68.	Hulu Selangor District Council
69.	Kuala Langat District Council
70.	Kuala Selangor District Council
71.	Sabak Bernam District Council
Kedah	
72.	Alor Setar City Council
73.	Kulim Municipal Council
74.	Sungai Petani Municipal Council
75.	Langkawi Municipal Council
76.	Baling District Council
77.	Bandar Baharu District Council
78.	Kubang Pasu District Council
79.	Padang Terap District Council
80.	Pendang District Council
81.	Sik District Council
82.	Yan District Council
Pulau Pinang	
83.	Pulau Pinang Municipal Council
84.	Municipal Council Seberang Perai
Perak	
85.	Ipoh City Council
86.	Manjung Municipal Council
87.	Kuala Kangsar Municipal Council
88.	Taiping Municipal Council
89.	Teluk Intan Municipal Council
90.	Kampar District Council
91.	Gerik District Council
92.	Kerian District Council

No.	State/Local Authority
93.	Batu Gajah District Council
94.	Lenggong District Council
95.	Pengkalan Hulu District Council
96.	Perak Tengah District Council
97.	Selama District Council
98.	Tanjong Malim District Council
99.	Tapah District Council
100.	Kangar Municipal Council
Sabah	
101.	Kota Kinabalu City Hall
102.	Labuan Corporation
103.	Sandakan Municipal Council
104.	Tawau Municipal Council
105.	Kudat Town Board
106.	Tuaran District Council
107.	Tenom District Council
108.	Tambunan District Council
109.	Sipitang District Council
110.	Ranau District Council
111.	Penampang District Council
112.	Papar District Council
113.	Nabawan District Council
114.	Kunak District Council
115.	Kuala Penyu District Council
116.	Kota Marudu District Council
117.	Kota Belud District Council
118.	Kinabatangan District Council
119.	Keningau District Council
120.	Beluran District Council
121.	Beaufort District Council
122.	Semporna District Council
123.	Lahad Datu District Council
Sarawak	
124.	Kuching North City Hall
125.	Council of the City of Kuching South

No.	State/Local Authority
126.	Miri City Council
127.	Bintulu Development Authority
128.	Sibu Municipal Council
129.	Padawan Municipal Council
130.	Simunjan District Council
131.	Matu & Daro District Council
132.	Maradong & Julau District Council
133.	Lawas District Council
134.	Betong District Council
135.	Luar Bandar Sibu District Council
136.	Sri Aman District Council
137.	Serian District Council
138.	Sarikei District Council
139.	Saratok District Council
140.	Samarahan District Council
141.	Marudi District Council
142.	Lundu District Council
143.	Lubok Antu District Council
144.	Kapit District Council
145.	Kanowit District Council
146.	Dalat & Mukah District Council
147.	Bau District Council
148.	Limbang District Council
149.	Subis District Council