1. INTRODUCTION

*The statistics published in this report is based on the Household Income and Basic Amenities Survey (HIS & BA) 2022 conducted by the Department of Statistics, Malaysia (DOSM). The survey was carried out twice in five years to provide the data regarding income, poverty and basic amenities for **citizens only**. Household income statistics analysed in the Household Income Survey (HIS) Report 2022, while Basic Amenities (BA) Survey Report 2022 presents the findings of basic amenities accessed by households. The statistics regarding poverty and income gap was published in a separate report, namely Poverty in Malaysia 2022, Multidimensional Poverty Index (MPI) Malaysia 2022 and Income Inequality Malaysia 2022. This technical note contains more detailed descriptions to help users to better understand this survey and report.*

2. OBJECTIVE OF SURVEY

2.1 *The main objectives of the survey are as follows:*
   a) *to collect information on income distribution pattern of households;*
   b) *to gather current statistics on poor households; and*
   c) *to identify the accessibility of basic amenities by households.*

2.2 *Data from the survey are pertinent information used by government agencies as inputs in the planning, the formation of national development plans and the monitoring of The Twelfth Malaysia Plan (Twelfth Plan). Furthermore, these data also serve as an essential reference to economists, academicians, the private sectors and individuals for more detailed research and analysis.*

3. METHOD OF DATA COLLECTION

3.1 *Data collection is carried out using the face-to-face interview approach. DOSM officers and staffs who were involved in this survey were given special training as interviewers. They will visit Households (HH) in selected Living Quarters (LQ) to collect information related to demographics and income by using a set of questionnaires.*

3.2   Data quality checks are made by experienced officers from the DOSM State office to detect and correct any errors or missing information when the survey is carried out. The field review process is also implemented for selected households to ensure the data collected are of good quality.

4.   REFERENCE PERIOD

The information on household income was collected for the past twelve months. For example, for December 2022 survey month, the household income calculated is from 1st December 2021 to 30th November 2022.

5.   SCOPE AND COVERAGE

5.1   This survey covers states, strata (urban and rural) and administrative districts in Malaysia.

5.2   The coverage of this survey are households that live in **private LQ** only and does not include those who live in institutional residences such as hostels, hotels, hospitals, old folk's homes, prisons and welfare homes.

6.   CONCEPTS AND DEFINITION

6.1   **Living Quarters**
Living Quarters are defined as separate and independent structures that are usually used for living. The terms, **separate** and **independent** are defined as follows:

a)   **Separate**
A structure is considered separate if it is surrounded by either walls, fences, etc. and is covered by a roof.

b)   **Independent**
A structure is said to be independent when it has a direct access via public path, communal passageway or open space (i.e. the occupants can enter or exit their living quarters without going through someone else's premises).

6.2 Household

A household is defined as a person or group of related or unrelated people who usually live together and make common provisions for food and other living essentials.

6.3 Head of Household

Head of household is defined as any member whether male or female who is considered the head of household by other members of the household. The head of the household must be an income recipient aged 15 years and above.

6.4 Income

*Detailed information on income is obtained from household members who receive income. The concept and definition of income used in this survey refers to the **Canberra Group Handbook on Household Income Statistics, Second Edition, 2011** published by the United Nations. The sources of income include:*

a) Paid Employment

Income from paid employment can be received in the form of cash or in the form of goods and services. This includes wages and salaries for time worked and work performed; cash bonuses and gratuities; commissions and tips; allowance; profit-sharing bonuses and other forms of profit-related payments and free or subsidised goods & services from employers (including free food/ concession).

Conceptually, employee income also includes social insurance contributions from employers, employer contributions to Employees Provident Fund (EPF) and severance & termination compensation payments (except for one-off retirement payments such as gratuities for pensioners, which are considered capital transfers).

b) Self Employment

Income earned by individuals as a result of self employment. Net income from self-employment includes profits or losses accruing to owners or partners or those working in an unincorporated enterprise. It also includes an estimate of the value of goods and services obtained through barter as well as goods or crops/livestock produced for own use, after deducting operating expenses.

The basis for measuring income from self-employment in household income statistics is based on the concept of net income, which is the value of gross output minus operating costs and after adjustment for depreciation of assets used in production. Profit occurs when income is greater than operating expenses, while a loss occurs when operating expenses are greater than earnings.

c) **Property & Investment**

Income from property & investment is receipts from asset ownership, interest, dividends and rent. The details are as follows:

- *Income from property is defined as the revenue earned from the use or investment of assets made available to others for their use. It comprises returns that are usually in monetary form, from financial assets (interest and dividends), non-financial assets (rents) and royalties;*

- *Interest receipts are payments received from bank accounts or other financial institutions, certificates of deposit, government bonds/ loans, securities, debentures and loans to non-household members;*

- *Dividends are receipts from an investment in a company where the investor is not involved in the company's activities. This includes silent partners. It also includes pensions and annuities in the form of dividends from voluntary private insurance schemes;*

- *Rent is payment received for the use of assets such as land and houses;*

- *Royalties are incomes obtained from the services of patented or copyrighted materials, for example such as writing rights, copyrights for song compositions and others; and*

- *Imputed rent is assessed for homes occupied by its owners.*

d)   Current Transfers Received

Transfers can consist of cash, goods or services. Transfers can be made between households to other households, between the government and households, or between households and charities. These receipts can be both within or outside the country. The main motivation is to redistribute income either by the government (e.g. educational aid, zakat and Bantuan Prihatin Rakyat (BPR)/ Bantuan Sara Hidup (BSH)/ Bantuan Keluarga Malaysia (BKM)) or individual/ private (e.g. corporate social responsibility).

Current Transfers received directly affect the level of Gross Income and influence the consumption of goods and services. Therefore, all Current Transfers received in the form of cash and goods or services are considered as part of income. However, the Current Transfer does not cover capital transfers.

6.5   Gross and Disposable Income

Gross income and disposable income are the two main concepts of income used in this report and can be defined as follows:

a)   Gross Income

Gross income is the total amount of income earned by the household from all sources of income as stated in item 6.4.

b)   Disposable Income

Disposable income is the household's gross income after deducting current transfers paid such as direct taxes, contributions to other households, zakat payments, other current transfers paid and current transfer received in the form of in-kind. This concept of disposable income reflects the real income of the household against current consumption and savings.

For the purposes of this survey, the effect of the distribution of public expenditure (collective expenditure) is not taken into account due to the difficulty in evaluating the benefits obtained as part of household income.

6.6 Household Income

Household income is the amount of income usually received (accrued) by household members, in the form of cash or goods received repeatedly during the survey's reference period (within a year or more frequently).

6.7 Income Recipient

Income recipient refers to household members who receive income from any source (as per item 6.4) during the reference period. A household can have more than one income recipient.

6.8 Ethnic Group

The ethnic groups of Malaysian citizens are categorised as follows:

a)   *Bumiputera;*

b)   *Chinese;*

c)   *Indian; and*

d)   *Others.*

6.9 Highest certificate obtained

Refers to the highest certificate obtained from a public or private educational institution that provides formal education. The highest certificate obtained is classified according to the International Standard Classification of Education (ISCED):

a)   PMR or Equivalent

Refers to Penilaian Menengah Rendah, Sijil Rendah Pelajaran, Lower Certificate of Education, Sijil Rendah Agama, Pentaksiran Tingkatan Tiga or equivalent.

b)   SPM or Equivalent

Refers to Sijil Pelajaran Malaysia or equivalent (Senior Cambridge Certificate, GCE O Level and Sijil Pelajaran Vokasional Malaysia). This includes basic skills certificates obtained from specialised and technical skills training institutions where the study period is at least six months such as the GIATMARA certificate.

c) **STPM or Equivalent**

Refers to Sijil Tinggi Persekolahan Malaysia, Higher School Certificate, or equivalent qualifications (Sijil Tinggi Agama and GCE A Level).

d) **Certificate**

Refers to certificates obtained from colleges, polytechnics or other institutions that offer formal education. The certification period should not be less than six months.

e) **Diploma**

Refers to diplomas and equivalent certificates obtained from universities, colleges, schools or polytechnics prior to a degree qualification.

f) **Degree**

Refers to a degree (Bachelor's Degree, Master's or Doctor of Philosophy) obtained from a public or private higher education institution or equivalent.

g) **No Certificate**

Refers to those who are still in school or have finished school without obtaining any certificate.

6.10 Occupation

Occupation is classified according to the Malaysia Standard Classification of Occupation (MASCO) 2020 classification developed by the Ministry of Human Resources (MOHR) based on the International Standard Classification of Occupations (ISCO).

For a person who has more than one job, only the job that takes the most time during the reference period is considered his main job. If the working time of each job is the same, then the job that provides the highest income is the main job. In cases where the length of employment and income are the same for each job, the job in which he has worked the longest is considered his main job.

6.11 Industry

Individual main occupation industry is classified according to the Malaysian Standard Industrial Classification (MSIC) 2008 which is based on the International Standard Industrial Classification of All Economic Activities (ISIC) Revision 4.

7. SAMPLING FRAME

7.1 *The framework used for the HIS & BA 2022 sample selection is based on the Household Sampling Framework which consists of Enumeration Blocks (EBs) created for the 2020 Population and Housing Census which is updated from time to time. EB is an area of the earth's surface created to carry out survey operations which on average contains between 80 to 120 LQs. All EBs are formed within gazetted boundaries that are within administrative districts, sub-districts or local authority areas.*

7.2 *EB in the sampling framework is classified according to urban and rural areas. Urban areas are defined as used in the 2020 Population and Housing Census. An urban area is a gazetted area and a built-up area bordering it, and the combination of these two areas has a population of 10,000 or more at the time of the 2020 Population and Housing Census. Other areas, which are gazetted and have a total population of less than 10,000 people and non-gazetted areas, are classified as rural areas.*

7.3 *Built-up areas are regions adjacent to gazetted areas and have at least 60 per cent of the population (aged 15 years and above) engaged in non-agricultural activities.*

7.4 *The definition of urban areas also takes into account special development areas, which are development areas that are not gazetted and can be identified and separated from gazetted areas or areas with built-up areas exceeding five kilometres and having a population of at least 10,000 people with 60 per cent of the population (aged 15 years and above), who are involved in non-agricultural activities.*

7.5 *Urbanisation is a dynamic process that is constantly evolves with progress and development. Consequently, the urban areas identified in 2010 and 2020 Population and Housing Censuses may not necessarily refer to the same locations, as areas meeting the urban criteria will continue to expand and develop over time.*

7.6   *The classification of the area according to the strata used is as follows:*

Strata	Population of gazette, adjoining built-up areas and special development area
Metropolitan	75,000 and more
Urban large	10,000 to 74,999
Urban small	1,000 to 9,999
Rural	All other areas

7.7   *For sampling purposes, the classification of areas as in point 7.6 is used for all states and Federal Territories. For Sabah and Sarawak, given the problem of difficulty in accessing the interior, the rural strata were further developed based on the length of time it took to reach a place from the nearest urban centre.*

7.8   *For the purpose of tabulating the report, the strata are listed as follows:*

Urban= Metropolitan + Urban large
Rural = Urban small + All rural

8. SAMPLE DESIGN

8.1   *A two-stage stratified sampling design was used in HIS & BA 2022. The formation of the strata is as follows:*

Primary strata	Covered all states in Malaysia
Secondary strata	Covered administrative districts for all states in Malaysia
Tertiary strata	Covering urban and rural strata as stated in point 7.8

8.2   *Sample selection is performed at the EB stage using the systematic random sampling method. Next, the LQ sample is selected from the selected EB using the same method, generating random numbers and setting the selection interval to ensure equal probability of selection for each LQ. This systematic and scientific procedure is carried out to generate an unbiased sample that can represent the entire population of households in Malaysia.*

9. SAMPLE SIZE

9.1 *The sample size of HIS & BA 2022 needs to represent the population according to the requirements of the analysis level set. This sample size has taken into account the following elements:*

i) *Findings from the previous survey HIS & BA 2019;*

ii) *Sampling design; and*

iii) *Margin of error.*

9.2 *Estimated sample size is calculated within each stratum (administrative districts) and substratum (urban and rural). The sample size calculation takes into account the mean income, a 95 per cent confidence level, relative standard error, design effect and specified response rate.*

9.3 *The sample size calculation for subpopulation j, n_{1j} is calculated using the following formula:*

$$n_{1j} = \frac{n_{0j}}{1 + \frac{n_{0j}}{N_j}} \qquad\qquad ; j = 1,2,3,\ldots,k$$

where:

$$n_{0j} = \frac{\sigma^2}{(RSE \times \mu)^2}$$

To meet the assumptions in Stratified Sampling, the design effect factor (D.E.) is taken into account:

$$D.E. = \frac{variance\ for\ complex\ sample}{variance\ for\ SRS}$$

Sample size considering D.E. for subpopulation j, n_{2j} is given by:

$$n_{2j} = n_{1j} \times D.E.$$

And then, taking into account the response rate of the last survey, the overall sample size for sub-population j, n_3 is as follows:

$$n_{3j} = n_{2j} \times \frac{1}{Response\ Rate}$$

So, the total sample size, n is given by:

$$n = \sum_{j=1}^{k} n_{3j}$$

where:

n_{0j} *the basic sample size obtained consider the Finite Population Factor (FPC) for subpopulation j*

n_{1j} *sample size that takes into account population factors for subpopulation j*

n_{2j} *sample size that takes into account design effect factors for subpopulation j*

n_{3j} *sample size that takes into account the response rate factor for subpopulation j*

N *the number of element units in the population*

n *total sample size*

σ *standard deviation*

RSE relative standard error

μ *mean income from previous survey*

9.4   *The sample size for HIS & BA 2022 is as follows:*

Table 2: Number of EBs, LQs and Household Response by State, Malaysia, 2022

State	Number of EB	Number of LQ	Number of Household Response
Malaysia	**11,609**	**92,872**	**89,253**
Johor	955	7,640	7,517
Kedah	789	6,312	6,138
Kelantan	700	5,600	5,177
Melaka	332	2,656	2,504
Negeri Sembilan	409	3,272	3,111
Pahang	601	4,808	4,662
Pulau Pinang	634	5,072	4,693
Perak	919	7,352	7,214
Perlis	205	1,640	1,600
Selangor	1,333	10,664	10,470
Terengganu	564	4,512	4,299
Sabah	1,464	11,712	11,507
Sarawak	1,785	14,280	13,516
W.P. Kuala Lumpur	729	5,832	5,387
W.P. Labuan	91	728	716
W.P. Putrajaya	99	792	742

10. ESTIMATION

In the estimation procedure, a weight (non-response weight) is used to account non-response cases. The original weight (design weight) is adjusted by considering non-response rate for each domain or stratum. For example, if 5,000 households are selected but only 4,000 households respond to the survey, the original weight (design weight) will be adjusted to account for a 20 per cent non-response rate. If the original weight (design weight) is 2.0, meaning that one household sample represents two households in the population, then the weight (non-response weight) will be adjusted to 2.5, indicating one household sample represents 2.5 other households.

11. LIMITATION OF THE DATA

11.1 *One such limitation is that the household income data covers only the income portion which accrues and received repeatedly in the form of cash or goods during the survey's reference period.*

11.2 *The income data presented in this report have been obtained through a household survey covering only private households, excluding the institutional households. Furthermore, household income had been used for analysis and the characteristics used (for e.g.: ethnic group, age group, industry group, occupational group and highest certificate obtained) refer to that of the head of household. As such, certain limitations are bound to arise in connection with the use of the income data.*

11.3 *Analysis of this report refers to the head of households who need not necessary be the main income recipient.*

12. DATA EVALUATION

12.1 *The data obtained from the survey conducted using a probability sample is subject to two types, namely sampling error and non-sampling error.*

i) Sampling Error

Sampling error arises from estimating data obtained from a probability sample and can be assessed by calculating the Relative Standard Error, typically expressed as a percentage. This error serves as an indicator of the accuracy of the estimated parameter under investigation, providing insight into the level of variation between the variables estimated through the survey and the population parameters.

For example, findings from the HIS & BA 2022 revealed that the mean monthly household gross income for Malaysia is RM8,479 with a Relative Standard Error of 0.4 per cent. In other words, the Standard Error value is RM38. Based on a 95 per cent confidence interval (α=0.05), the mean monthly household gross income falls within the range of RM8,405 to RM8,553 per month.

ii) Non-Sampling Error

These errors can arise due to incomplete survey coverage, weakness in the survey framework, errors in feedback, non-responses, and mistakes during processing stages such as editing, coding and data capture. To maintain a high level of the data quality, various administrative measures have been implemented to minimize non-sampling errors. These measures include intensive training provided to supervisors and enumerators, as well as close supervision and random checks conducted on households covered by enumerators to ensure the accuracy and validity of the recorded information.

To overcome cases of no response resulting from several reasons such as empty LQ, no resident at home, refusal to cooperate or LQ not eligible to be covered in the survey, the sample size estimation of HIS & BA 2022 has taken into account all these possibilities.

The updating of the sampling frame implemented from time to time has been able to reduce the non-response rate caused by empty LQ. Extensive publicity is carried out through electronic media and print media to reduce cases of no residents at home and refusing to cooperate.

In addition to that, at the data processing level, consistency checks for each variable and validation processes have been systematically implemented to minimise all non-sampling errors.

13. THRESHOLD INCOME FOR HOUSEHOLD GROUP BY INCOME

13.1 Household Group by Income

Threshold of monthly household income by household group for Top 20 per cent (T20), Middle 40 per cent (M40) and Bottom 40 per cent (B40) for each strata, ethnic group and state are as follows:

**Table 3: Thresholds of Monthly Household Gross Income by
Household Group and Strata, Malaysia, 2022**

Strata	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Malaysia	**< 5,250**	**5,250 - 11,819**	**≥ 11,820**
Urban	< 6,030	6,030 - 12,899	≥ 12,900
Rural	< 3,510	3,510 - 7,039	≥ 7,040

**Table 4: Thresholds of Monthly Household Gross Income by
Household Group and Ethnic Group, Malaysia, 2022**

Ethnic Group	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Bumiputera	< 4,860	4,860 - 10,679	≥ 10,680
Chinese	< 6,650	6,650 - 14,689	≥ 14,690
Indian	< 5,580	5,580 - 11,989	≥ 11,990
Others	< 3,889	3,890 - 7,699	≥ 7,700

Table 5: Thresholds of Monthly Household Gross Income by Household Group and State, Malaysia, 2022

State	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Malaysia	**< 5,250**	**5,250 - 11,819**	**≥ 11,820**
Johor	< 5,740	5,740 - 11,919	≥ 11,920
Kedah	< 3,750	3,750 - 7,429	≥ 7,430
Kelantan	< 3,060	3,060 - 6,469	≥ 6,470
Melaka	< 5,220	5,220 - 11,169	≥ 11,170
Negeri Sembilan	< 4,329	4,330 - 9,509	≥ 9,510
Pahang	< 4,140	4,140 - 7,799	≥ 7,800
Pulau Pinang	< 5,580	5,580 - 11,489	≥ 11,490
Perak	< 3,790	3,790 - 7,919	≥ 7,920
Perlis	< 4,090	4,090 - 7,789	≥ 7,790
Selangor	< 8,390	8,390 - 15,729	≥ 15,730
Terengganu	< 5,150	5,150 - 9,229	≥ 9,230
Sabah	< 3,840	3,840 - 8,529	≥ 8,530
Sarawak	< 4,160	4,160 - 9,209	≥ 9,210
W.P. Kuala Lumpur	< 8,880	8,880 - 16,779	≥ 16,780
W.P. Labuan	< 6,020	6,020 - 10,799	≥ 10,800
W.P. Putrajaya	< 8,970	8,970 - 18,319	≥ 18,320

Table 6: Thresholds of Monthly Household Disposable Income by Household Group and Strata, Malaysia, 2022

Strata	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Malaysia	**< 4,500**	**4,500 - 9,919**	**≥ 9,920**
Urban	< 5,110	5,110 - 10,709	≥ 10,710
Rural	< 3,100	3,100 - 6,209	≥ 6,210

Table 7: Thresholds of Monthly Household Disposable Income by Household Group and Ethnic Group, Malaysia, 2022

Ethnic Group	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Bumiputera	< 4,180	4,180 - 9,089	≥ 9,090
Chinese	< 5,640	5,640 - 12,019	≥ 12,020
Indian	< 4,690	4,690 - 9,889	≥ 9,890
Others	< 3,299	3,300 - 6,649	≥ 6,650

Table 8: Thresholds of Monthly Household Disposable Income by Household Group and State, Malaysia, 2022

State	Income Thresholds (RM)		
	Bottom 40%	Middle 40%	Top 20%
Malaysia	**< 4,500**	**4,500 - 9,919**	**≥ 9,920**
Johor	< 4,880	4,880 - 10,159	≥ 10,160
Kedah	< 3,250	3,250 - 6,479	≥ 6,480
Kelantan	< 2,670	2,670 - 5,759	≥ 5,760
Melaka	< 4,550	4,550 - 9,739	≥ 9,740
Negeri Sembilan	< 3,740	3,740 - 7,979	≥ 7,980
Pahang	< 3,720	3,720 - 6,889	≥ 6,890
Pulau Pinang	< 4,740	4,740 - 9,479	≥ 9,480
Perak	< 3,240	3,240 - 6,749	≥ 6,750
Perlis	< 3,780	3,780 - 7,229	≥ 7,230
Selangor	< 7,010	7,010 - 12,889	≥ 12,890
Terengganu	< 4,650	4,650 - 8,279	≥ 8,280
Sabah	< 3,350	3,350 - 7,389	≥ 7,390
Sarawak	< 3,580	3,580 - 7,979	≥ 7,980
W.P. Kuala Lumpur	< 7,130	7,130 - 13,349	≥ 13,350
W.P. Labuan	< 4,810	4,810 - 8,749	≥ 8,750
W.P. Putrajaya	< 7,960	7,960 - 15,049	≥ 15,050

13.2 Quintile Income Group

The value obtained from dividing the data sorted by magnitude into five equal parts is called quintile. Using this method, households were sorted by income in ascending order. Quintiles divide households into five equal groups (from lowest to highest) where each group represents 20 per cent or one fifth of all households.

13.3 Decile Income Group

The income decile group is the tenth order of households which is ordered from minimum to maximum. The first decile group is the first decile (10 per cent of all households with the lowest income). The last decile is the tenth of households with the highest income.

14. COMPOUNDED ANNUAL GROWTH RATE

The calculation of the compounded annual growth rate is based on the exponential function as follows:

$$CAGR = \frac{\ln\left(\frac{Y_t}{Y_0}\right)}{t} \times 100$$

where;

CAGR	*compounded annual growth rate*
Y_t	*monthly household income of the current year*
Y_0	*monthly household income of the previous year*
t	*period between the current year and the previous year*

15. ROUNDING OF ESTIMATE

Counts for a category may not always be the same between tables due to arbitrary rounding. However, this difference is not significant.

The percentages shown in the table are obtained from actual figures and do not necessarily give an even number of 100 per cent due to rounding, although the number shown is 100 per cent.

16. NOTES AND SYMBOLS

0.0	*Less than half the smallest unit shown. For example, less than 0.05 per cent*
-	*Nil/ blank/ no case*
W.P.	*Wilayah Persekutuan*
RM	*Ringgit Malaysia*
n.a.	*Not applicable*
n.s.	*Not significant*