

KEMENTERIAN EKONOMI
JABATAN PERANGKAAN MALAYSIA

B//23 **BANCI EKONOMI** *ECONOMIC CENSUS* **2023**



**BEKALAN AIR; PEMBETUNGAN,
PENGURUSAN SISA DAN AKTIVITI PEMULIHAN**
*WATER SUPPLY; SEWERAGE,
WASTE MANAGEMENT AND REMEDIATION ACTIVITIES*

JABATAN PERANGKAAN MALAYSIA
DEPARTMENT OF STATISTICS MALAYSIA

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KEMENTERIAN EKONOMI
JABATAN PERANGKAAN MALAYSIA

BANCI EKONOMI
ECONOMIC CENSUS

2023

**BEKALAN AIR; PEMBETUNGAN, PENGURUSAN SISA
DAN AKTIVITI PEMULIHAN**
**WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT
AND REMEDIATION ACTIVITIES**

Pemakluman

Jabatan Perangkaan Malaysia (DOSM) telah melancarkan OpenDOSM NextGen sebagai medium yang menyediakan katalog data dan visualisasi bagi memudahkan pengguna menganalisis pelbagai data dan boleh diakses melalui portal <https://open.dosm.gov.my>.

DOSM sedang menjalankan Banci Pertanian pada tahun 2024. Sila layari <https://www.myagricensus.gov.my/> untuk maklumat lanjut. Tema adalah "Banci Pertanian, Kunci Kemajuan Pertanian."

Kerajaan Malaysia telah mengisytiharkan Hari Statistik Negara (MyStats Day) pada 20 Oktober setiap tahun. Tema sambutan MyStats Day adalah "Statistik Nadi Kehidupan". DOSM menyambut ulang tahun ke 75 Jubli Intan pada tahun 2024.

Announcement

The Department of Statistics Malaysia (DOSM) has launched OpenDOSM NextGen as a medium that provides a catalog of data and visualisations to facilitate users' analysis of various data and can be accessed through <https://open.dosm.gov.my>.

DOSM will conduct the Agricultural Census in 2024. Please visit <https://www.myagricensus.gov.my/> for more information. The theme is "Agriculture Census, Key to Agriculture Development."

The Government of Malaysia has declared National Statistics Day (MyStats Day) on October 20th each year. MyStats Day theme is "Statistics is the Essence of Life". DOSM commemorates its 75th Diamond Jubilee in 2024.

JABATAN PERANGKAAN MALAYSIA
DEPARTMENT OF STATISTICS MALAYSIA

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Kata Pengantar

Penerbitan Banci Ekonomi 2023 Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan ini memaparkan statistik utama bagi tahun rujukan 2022. Ia merangkumi enam (6) aktiviti ekonomi iaitu Penakungan, perawatan dan bekalan air; Pembetulan; Pengumpulan sisa; Rawatan dan pelupusan sisa; Pemulihan semula bahan; dan Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa. Statistik ini diperoleh daripada Banci Ekonomi 2023 yang meliputi semua pertubuhan yang dikelaskan di bawah Seksyen E: Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan dalam Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi. 1.0, selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008*. Kali terakhir banci ini dijalankan adalah pada tahun 2016 bagi tahun rujukan 2015.

Statistik utama yang berkaitan dengan bilangan pertubuhan, nilai output kasar, nilai input perantaraan, nilai ditambah, bilangan pekerja, gaji & upah dan nilai harta tetap mengikut aktiviti dilaporkan dalam penerbitan ini. Maklumat pekerja terperinci mengikut jantina, kategori, kemahiran, sijil tertinggi diperoleh dan kewarganegaraan turut dipaparkan. Selain itu, statistik utama lain seperti statistik pertubuhan milikan wanita turut dimuatkan dalam penerbitan ini. Statistik tersebut boleh digunakan oleh ahli ekonomi, ahli akademik, pihak swasta, individu dan agensi kerajaan bagi tujuan membuat perancangan dan penggubalan dasar, analisis ekonomi, unjuran dan dapat membantu merancang pembangunan perniagaan.

Penerbitan ini dibahagikan kepada empat bahagian. Bahagian pertama memaparkan statistik utama perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan diikuti bahagian kedua mengandungi ringkasan penemuan. Manakala, bahagian ketiga mengandungi jadual statistik terperinci dan bahagian seterusnya adalah berkaitan penerangan aspek teknikal seperti skop dan liputan, konsep dan definisi serta penjelasan berkaitan pembolehubah utama.

Jabatan Perangkaan Malaysia (DOSM) merakamkan setinggi-tinggi penghargaan atas kerjasama semua pihak yang telah membekalkan statistik yang diperlukan dan menyumbang kepada kejayaan penerbitan ini. Setiap maklum balas dan cadangan untuk penambahbaikan penerbitan ini pada masa akan datang amat dihargai.

DATO' SRI DR. MOHD UZIR MAHIDIN

Ketua Perangkawan Malaysia

Ogos 2024

Preface

The Economic Census 2023 Water Supply; Sewerage, Waste Management and Remediation Activities publication presents the principal statistics for the reference year 2022. It covers six (6) economic activities which are Water collection, treatment, and supply; Sewerage; Waste collection; Waste treatment and disposal; Material recovery; and Remediation activities and other waste management services. These statistics were obtained from the Economic Census 2023, which includes all establishments classified in Section E: Water Supply; Sewerage, Waste Management and Remediation Activities under the Malaysia Standard Industrial Classification (MSIC) 2008 Version 1.0, in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008. The previous census was conducted in 2016, for the reference year of 2015.

Principal statistics related to the number of establishment, value of gross output, value of intermediate input, value added, number of persons engaged, salaries & wages and value of fixed assets by activities are reported in this publication. Detailed employee information by gender, category, skills, highest certificate obtained and citizenship are also displayed. In addition, other key statistics, such as statistics on women-owned establishments, are also included in this publication. These statistics can be used by economists, academicians, private sectors, individuals, and government agencies for planning and policy formulations, economic analysis, projections, and to assist in business development planning.

This publication is divided into four parts. The first part displays the main highlights of statistics for the Water Supply; Sewerage, Waste Management and Remediation Activities services, followed by the second part, which contains a summary of findings. Meanwhile, the third part provides detailed statistical tables, while the following part covers technical aspects, including scope and coverage, concepts and definitions, and explanations of key variables.

Department of Statistics Malaysia (DOSM) gratefully acknowledges the cooperation of all parties who have provided the required statistics and contributed to the success of this publication. Every feedback and suggestion towards improving future publications is highly appreciated.

DATO' SRI DR. MOHD UZIR MAHIDIN

Chief Statistician Malaysia

August 2024

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BAHAGIAN *PART* **1**

STATISTIK UTAMA *MAIN STATISTICS*

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BANGCI 23

BANGCI EKONOMI 2023
DATA PEMANGKIN EKONOMI NEGARA

STATISTIK UTAMA

BEKALAN AIR; PEMBETUNGAN, PENGURUSAN SISA DAN AKTIVITI PEMULIHAN

Bilangan Pertubuhan

2022: 1,008 pertubuhan
2015: 790 pertubuhan
CAGR: 3.5%



Nilai Output Kasar

2022: RM18.9 bilion
2015: RM12.3 bilion
CAGR: 6.3%



Nilai Input Perantaraan

2022: RM9.0 bilion
2015: RM6.4 bilion
CAGR: 4.9%



Nilai Ditambah

2022: RM9.9 bilion
2015: RM5.9 bilion
CAGR: 7.6%



Bilangan Pekerja

2022: 59,535 orang
2015: 49,162 orang
CAGR: 2.8%



Gaji & Upah

2022: RM2.4 bilion
2015: RM1.4 bilion
CAGR: 7.8%



Nilai Harta Tetap

2022: RM11.2 bilion
2015: RM8.0 bilion
CAGR: 4.9%



Bilangan Pertubuhan Milikan Wanita

2022: 60 pertubuhan
2015: 53 pertubuhan
CAGR: 1.8%



NILAI DITAMBAH TERTINGGI

MENGIKUT AKTIVITI

Penakungan, perawatan & bekalan air

2022: RM6.2 bilion **CAGR: 8.4%**
2015: RM3.5 bilion



Pengumpulan sisa

2022: RM1.9 bilion **CAGR: 8.4%**
2015: RM1.1 bilion



Rawatan & pelupusan sisa

2022: RM0.9 bilion **CAGR: 8.3%**
2015: RM0.5 bilion



MENGIKUT NEGERI

Selangor



2022: RM3.4 bilion **CAGR: 8.0%**
2015: RM2.0 bilion

Johor



2022: RM2.4 bilion **CAGR: 14.1%**
2015: RM0.9 bilion

W.P. Kuala Lumpur



2022: RM1.0 bilion **CAGR: 3.4%**
2015: RM0.8 bilion



MAIN STATISTICS

WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES

Number of Establishments

2022: 1,008 establishments
 2015: 790 establishments
CAGR: 3.5%



Value of Gross Output

2022: RM18.9 billion
 2015: RM12.3 billion
CAGR: 6.3%



Value of Intermediate Input

2022: RM9.0 billion
 2015: RM6.4 billion
CAGR: 4.9%



Value Added

2022: RM9.9 billion
 2015: RM5.9 billion
CAGR: 7.6%



Number of Persons Engaged

2022: 59,535 persons
 2015: 49,162 persons
CAGR: 2.8%



Salaries & Wages

2022: RM2.4 billion
 2015: RM1.4 billion
CAGR: 7.8%



Value of Fixed Assets

2022: RM11.2 billion
 2015: RM8.0 billion
CAGR: 4.9%



Number of Women-owned Establishments

2022: 60 establishments
 2015: 53 establishments
CAGR: 1.8%



HIGHEST VALUE ADDED

BY ACTIVITY

Water collection, treatment & supply
2022: RM6.2 billion
 2015: RM3.5 billion
CAGR: 8.4%



Waste collection
2022: RM1.9 billion
 2015: RM1.1 billion
CAGR: 8.4%



Waste treatment & disposal
2022: RM0.9 billion
 2015: RM0.5 billion
CAGR: 8.3%



BY STATE

Selangor



2022: RM3.4 billion
 2015: RM2.0 billion
CAGR: 8.0%

Johor



2022: RM2.4 billion
 2015: RM0.9 billion
CAGR: 14.1%

W.P. Kuala Lumpur



2022: RM1.0 billion
 2015: RM0.8 billion
CAGR: 3.4%



BAHAGIAN *PART* **2**

RINGKASAN PENEMUAN *SUMMARY OF FINDINGS*

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1. PENGENALAN

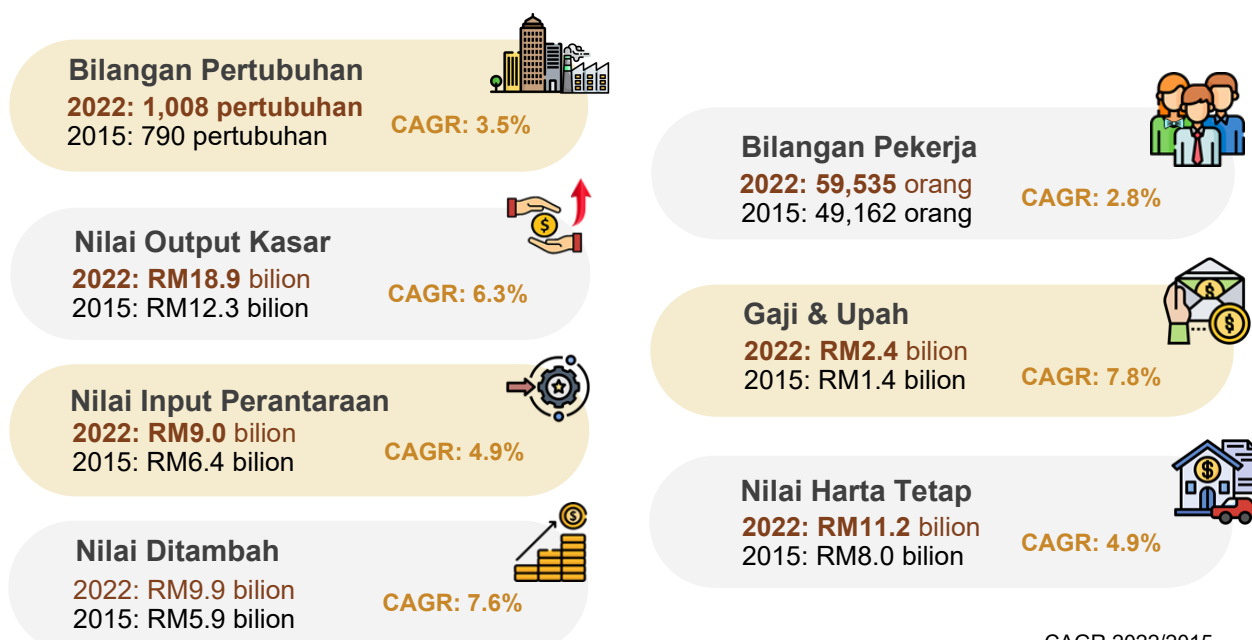
Penerbitan ini memaparkan statistik bagi Perkhidmatan Bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan yang diperolehi daripada Banci Ekonomi 2023 bagi tahun rujukan 2022. Perkhidmatan bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan merangkumi enam aktiviti utama iaitu Aktiviti penakungan, perawatan & bekalan air; Pembetungan; Pengumpulan sisa; Rawatan & pelupusan sisa; Pemulihan semula bahan dan Aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa.

2. PRESTASI PERKHIDMATAN BEKALAN AIR; PEMBETUNGAN, PENGURUSAN SISA DAN AKTIVITI PEMULIHAN

Perkhidmatan bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan pada tahun 2022 mencatatkan bilangan pertubuhan sebanyak 1,008 pertubuhan dengan kadar pertumbuhan tahunan sebanyak 3.5 peratus berbanding tahun 2015. Nilai output kasar berjumlah RM18.9 bilion, meningkat 6.3 peratus setahun berbanding 2015. Selari dengan pertumbuhan nilai output kasar, nilai input perantaraan turut meningkat dengan mencatatkan RM9.0 bilion dengan kadar pertumbuhan tahunan 4.9 peratus, menghasilkan nilai ditambah sebanyak RM9.9 bilion pada tahun 2022 (2015: RM5.9 bilion).

Perkhidmatan ini mencatatkan bilangan pekerja seramai 59,535 orang bagi tahun 2022 (2015: 49,162 orang). Dalam tempoh yang sama, jumlah gaji & upah turut meningkat kepada RM2.4 bilion pada tahun 2022 (2015: RM1.4 bilion). Sementara itu, nilai harta tetap yang dimiliki oleh pertubuhan dalam Perkhidmatan Bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan pada tahun 2022 adalah RM11.2 bilion (2015: RM8.0 bilion), dengan kadar pertumbuhan tahunan sebanyak 4.9 peratus seperti yang ditunjukkan pada **Paparan 1**.

Paparan 1: Statistik Utama Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan, 2015 dan 2022

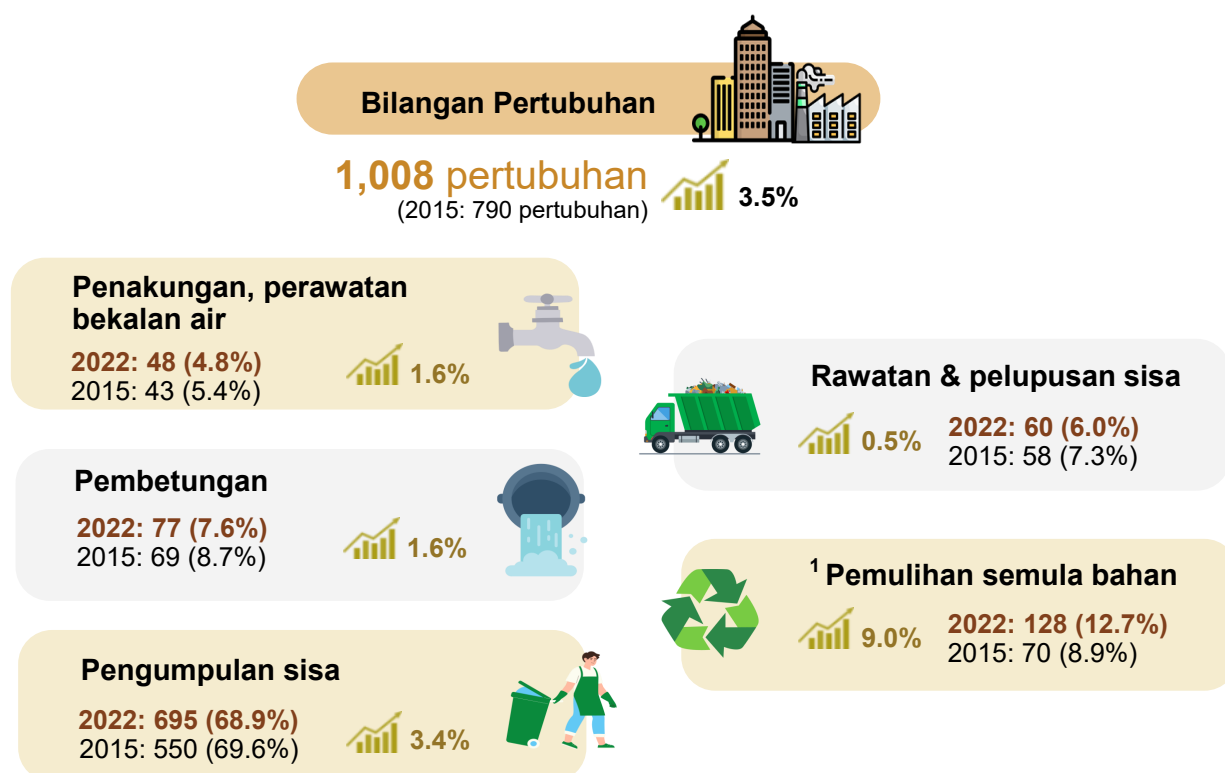


3. BILANGAN PERTUBUHAN

Pada tahun 2022, sejumlah 1,008 pertubuhan beroperasi dalam Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan berbanding 790 pertubuhan pada tahun 2015. Pengumpulan sisa mencatatkan bilangan pertubuhan tertinggi, iaitu sebanyak 695 pertubuhan atau 68.9 peratus. Ini diikuti oleh aktiviti Pemulihan semula bahan dengan 128 pertubuhan atau 12.7 peratus dan Pembetulan (77 pertubuhan; sumbangan: 7.6%) seperti di **Paparan 2**.

Dalam tempoh 2015 hingga 2022, bilangan pertubuhan bagi subsektor ini telah meningkat sebanyak 218 pertubuhan dengan kadar pertumbuhan tahunan 3.5 peratus. Pertumbuhan tertinggi dicatatkan oleh aktiviti Pemulihan semula bahan (CAGR: 9.0%), Pengumpulan sisa (CAGR: 3.4%), Pembetulan (CAGR: 1.6%) dan Penakungan, perawatan bekalan air (CAGR: 1.6%).

Paparan 2: Bilangan Pertubuhan bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa
(%) sumbangan

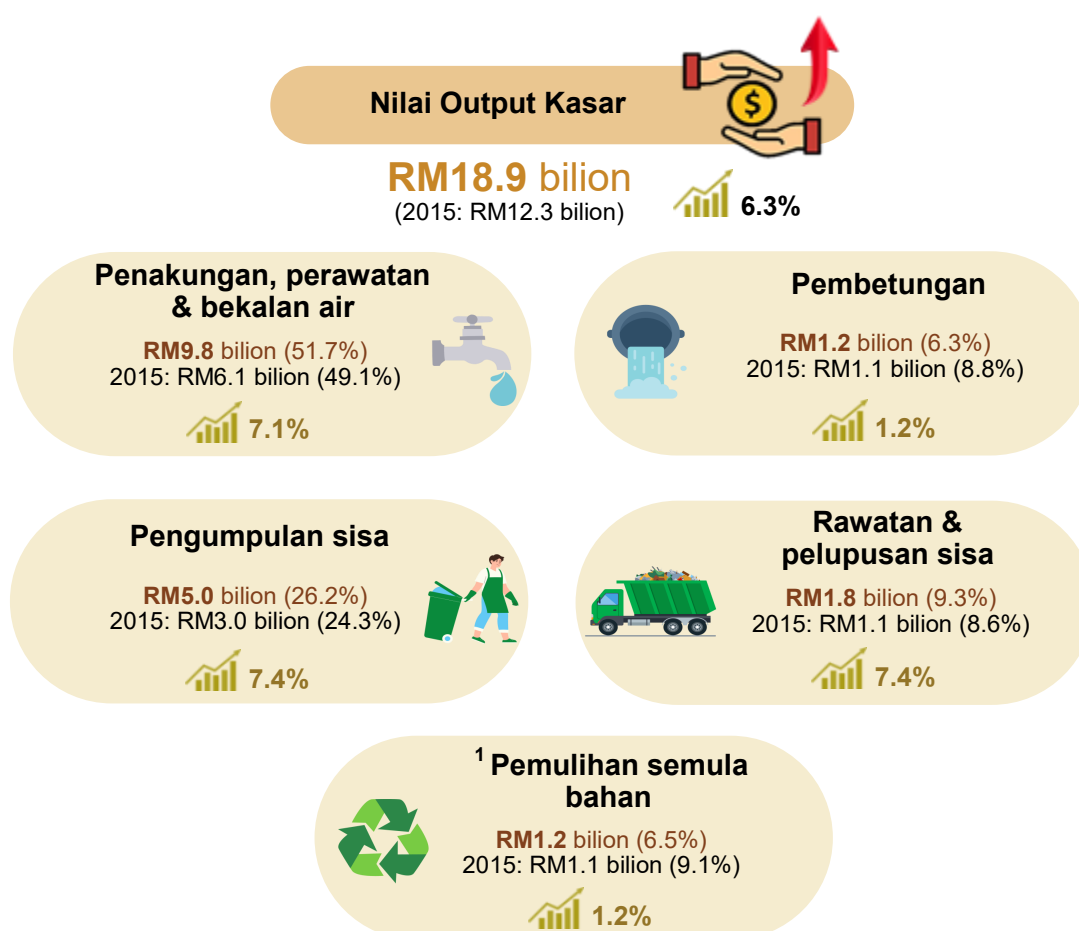
CAGR 2022/2015

4. NILAI OUTPUT KASAR

Nilai output kasar pada 2022 mencatatkan RM18.9 bilion dengan kadar pertumbuhan tahunan 6.3 peratus berbanding tahun 2015. Aktiviti dengan pertumbuhan tertinggi adalah Pengumpulan sisa (CAGR: 7.4%), Rawatan & pelupusan sisa (CAGR: 7.4%) dan Penakungan, perawatan & bekalan air (CAGR: 7.1%) seperti di **Paparan 3**.

Aktiviti Penakungan, perawatan & bekalan air kekal sebagai penyumbang utama nilai output kasar sebanyak RM9.8 bilion dengan sumbangan 51.7 peratus. Ini diikuti oleh aktiviti Pengumpulan sisa (RM5.0 bilion; sumbangan: 26.2%) dan Rawatan dan pelupusan sisa (RM1.8 bilion; sumbangan: 9.3%). Tiga industri ini telah menyumbang 87.2 peratus daripada keseluruhan nilai output kasar pada tahun 2022.

Paparan 3: Nilai Output Kasar bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa
(%) sumbangan

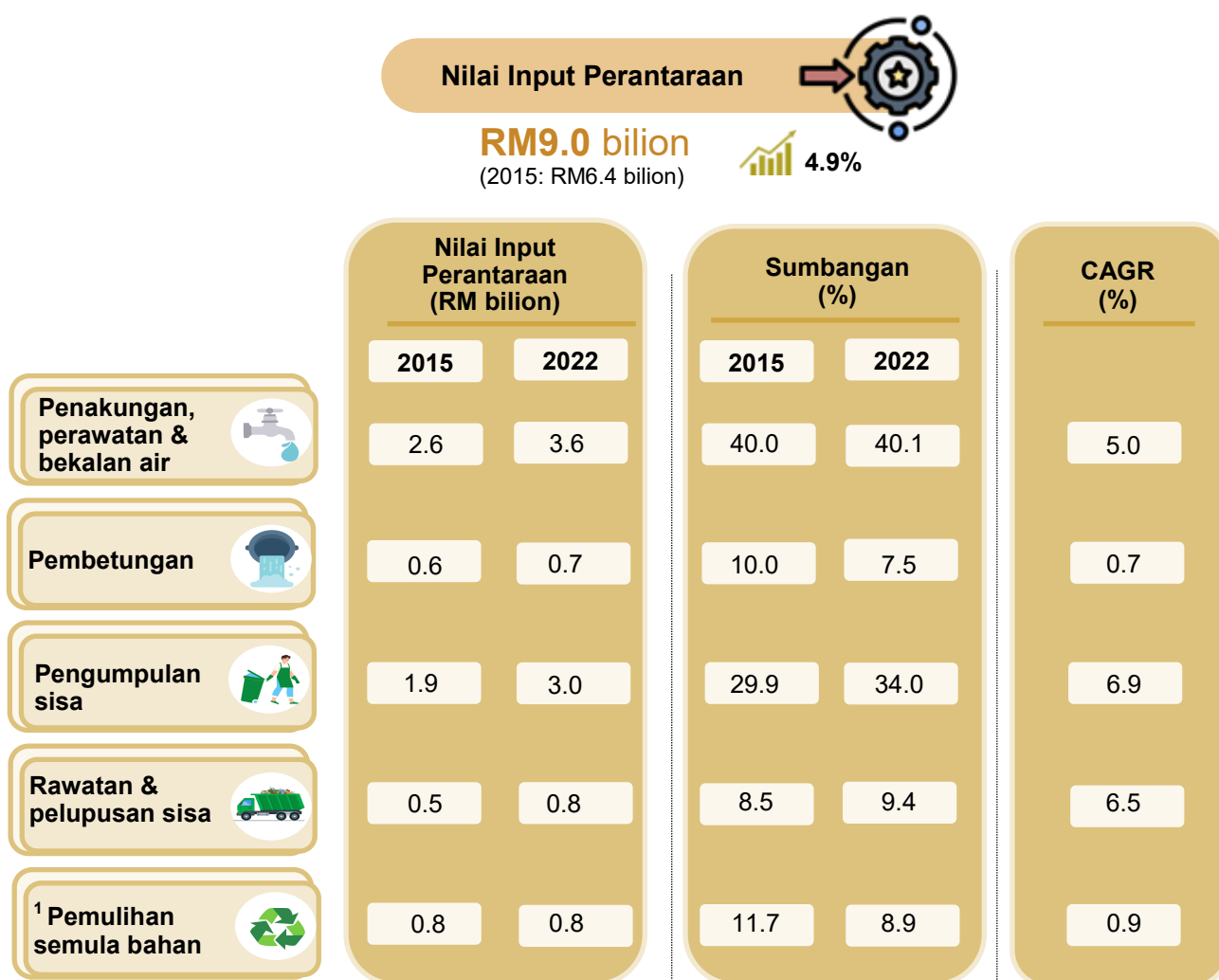
CAGR 2022/2015

5. NILAI INPUT PERANTARAAN

Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan mencatatkan nilai input perantaraan sebanyak RM9.0 bilion pada tahun 2022, bertumbuh 4.9 peratus setahun berbanding RM6.4 bilion pada tahun 2015. Aktiviti Pengumpulan sisa mencatatkan pertumbuhan tahunan tertinggi sebanyak 6.9 peratus diikuti oleh Rawatan & pelupusan sisa (CAGR: 6.5%) dan Penakungan, perawatan & bekalan air (CAGR: 5.0%) seperti di **Paparan 4**.

Dari segi aktiviti, Penakungan, perawatan & bekalan air merupakan penyumbang utama sebanyak 40.1 peratus dengan nilai RM3.6 bilion (2015: RM2.6 bilion). Sementara itu, pengumpulan sisa menyumbang 34.0 peratus dengan nilai RM3.0 bilion (2015: RM1.9 bilion), diikuti Rawatan & pengumpulan sisa dengan sumbangan 9.4 peratus dengan nilai RM0.8 bilion (2015: RM0.5 bilion).

Paparan 4: Nilai Input Perantaraan bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa

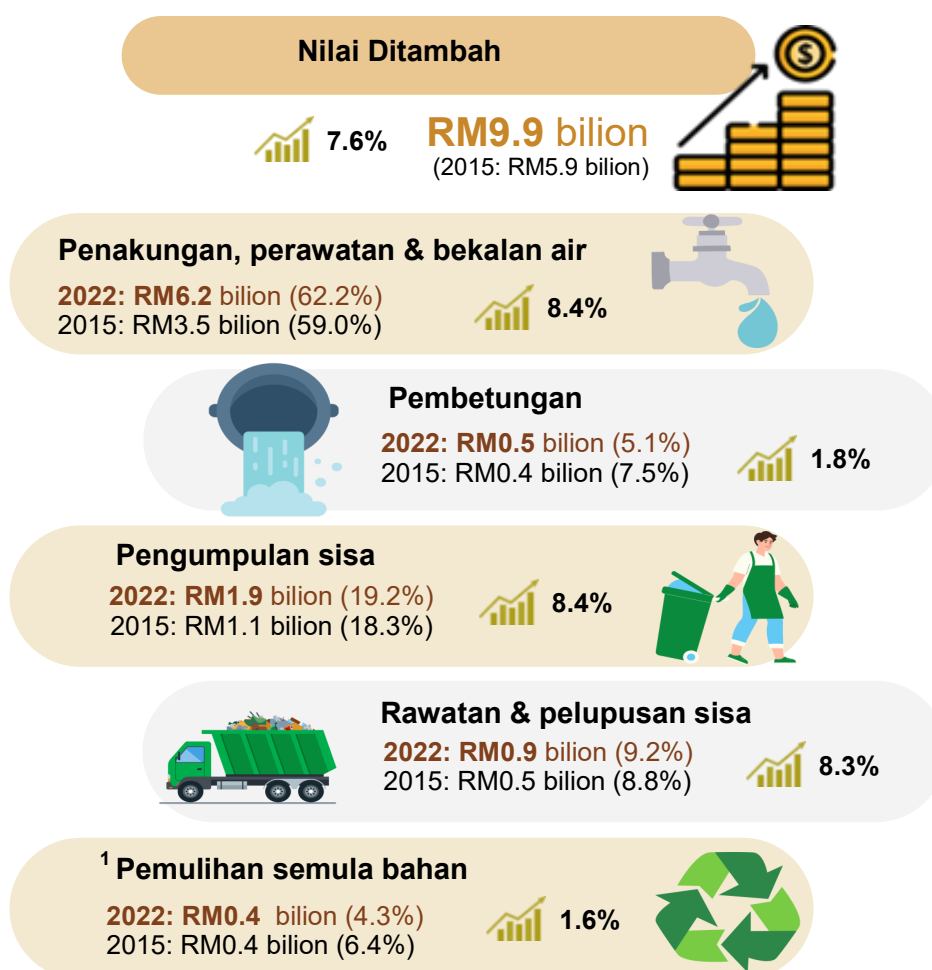
 CAGR 2022/2015

6. NILAI DITAMBAH

Nilai ditambah bagi Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan meningkat daripada RM5.9 bilion pada tahun 2015 kepada RM9.9 bilion pada tahun 2022 dengan kadar pertumbuhan tahunan sebanyak 7.6 peratus (**Paparan 5**). Aktiviti penakungan, perawatan & bekalan air kekal sebagai penyumbang utama dengan nilai sebanyak RM6.2 bilion (sumbangan: 62.2%). Penyumbang kedua adalah Pengumpulan sisa dengan nilai sebanyak RM1.9 bilion (sumbangan: 19.2%), diikuti dengan Rawatan & pelupusan sisa dengan nilai RM0.9 bilion (sumbangan: 9.2%).

Sementara itu, Aktiviti Penakungan, perawatan & bekalan air mencatatkan pertumbuhan tahunan tertinggi sebanyak 8.4 peratus diikuti oleh Pengumpulan sisa (CAGR: 8.4%) dan Rawatan & pelupusan sisa (CAGR: 8.3%).

Paparan 5: Nilai Ditambah bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa
(%) sumbangan

CAGR 2022/2015

7. BILANGAN PEKERJA DAN GAJI & UPAH

Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan merekodkan bilangan pekerja seramai 59,535 orang bagi tahun 2022 berbanding 49,162 orang pada tahun 2015 dengan kadar pertumbuhan tahunan 2.8 peratus setahun seperti di **Paparan 6**.

Aktiviti penakungan, perawatan & bekalan air mempunyai bilangan pekerja yang tertinggi iaitu 23,327 orang dengan sumbangan 39.2 peratus. Ini diikuti oleh pengumpulan sisa 21,944 orang (sumbangan: 36.9%) dan pembetulan 5,582 orang (sumbangan: 9.4%). Tiga aktiviti ini menyumbang lebih separuh (sumbangan: 85.5%) kepada jumlah bilangan pekerja.

Paparan 6: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022

Bilangan Pekerja

59,535 orang
(2015: 49,162 orang)  2.8%



Penakungan, perawatan & bekalan air

2022: 23,327 orang (39.2%)
2015: 16,113 orang (32.8%)
 5.4%



Pembetulan

2022: 5,582 orang (9.4%)
2015: 5,193 orang (10.6%)
 1.0%



Pengumpulan sisa

2022: 21,944 orang (36.9%)
2015: 16,878 orang (34.3%)
 3.8%



Rawatan & pelupusan sisa

2022: 5,082 orang (8.5%)
2015: 5,050 orang (10.3%)
 0.1%



¹ Pemulihan semula bahan

2022: 3,600 orang (6.0%)
2015: 5,928 orang (12.1%)
 -6.9%



Nota:

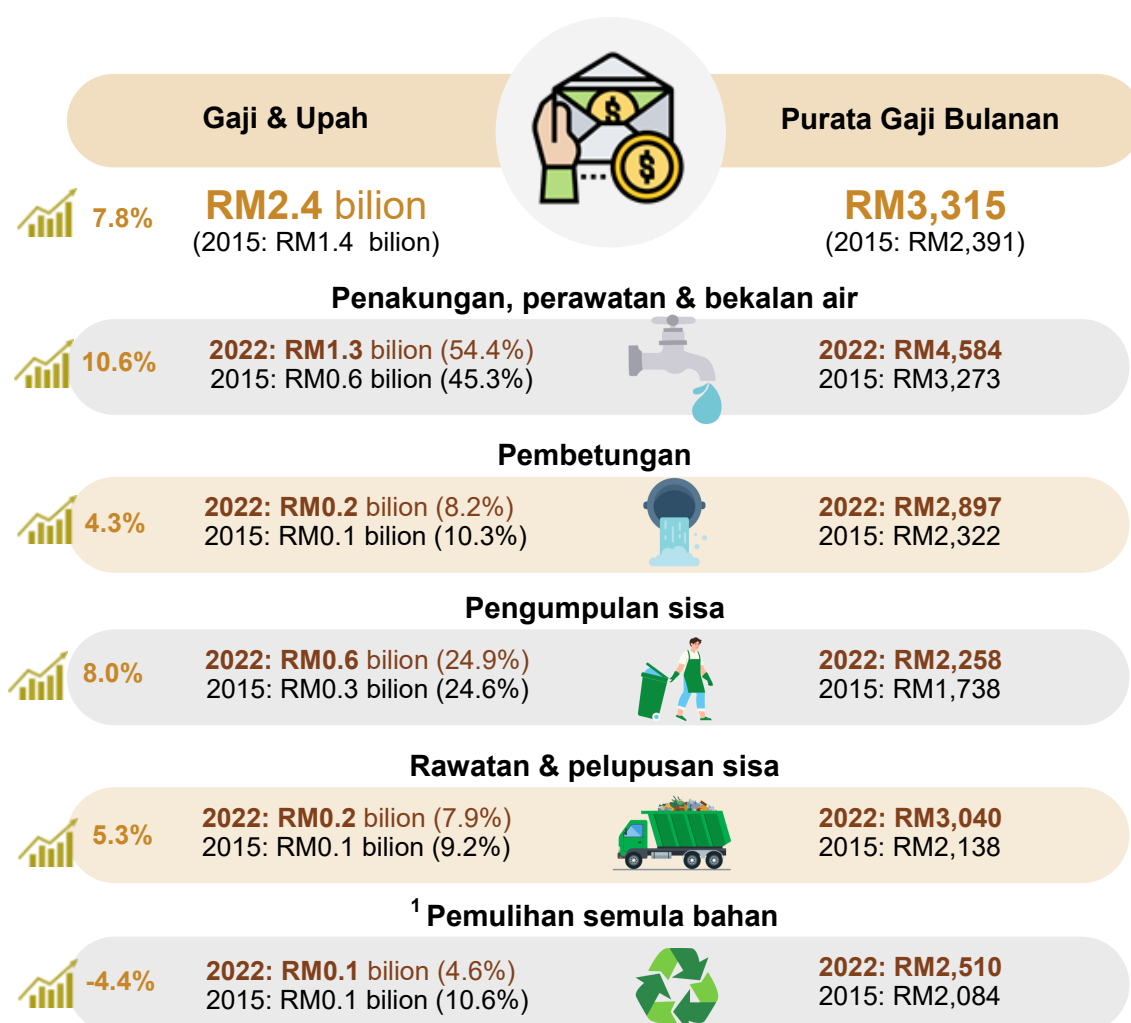
¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa
(%) sumbangan

 CAGR 2022/2015

Jumlah gaji & upah pada tahun 2022 adalah sebanyak RM2.4 bilion berbanding RM1.4 bilion pada tahun 2015 mencatatkan kadar pertumbuhan tahunan 7.8 peratus. Aktiviti Penakungan, perawatan & bekalan air mencatatkan jumlah gaji & upah yang tertinggi sebanyak RM1.3 bilion dengan sumbangan 54.4 peratus. Ini diikuti oleh Pengumpulan sisa RM0.6 bilion (sumbangan: 24.9%) dan Pembetulan RM0.2 bilion (sumbangan: 8.2%) seperti di **Paparan 7**.

Purata gaji & upah dalam Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan adalah sebanyak RM3,315 sebulan pada tahun 2022. Purata gaji bulanan yang tertinggi dicatatkan oleh aktiviti Penakungan, perawatan & bekalan air iaitu sebanyak RM4,584 diikuti oleh Rawatan & pelupusan sisa (RM3,040) dan Pembetulan (RM2,897).

Paparan 7: Gaji & Upah dan Purata Gaji Bulanan bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa
(%) sumbangan

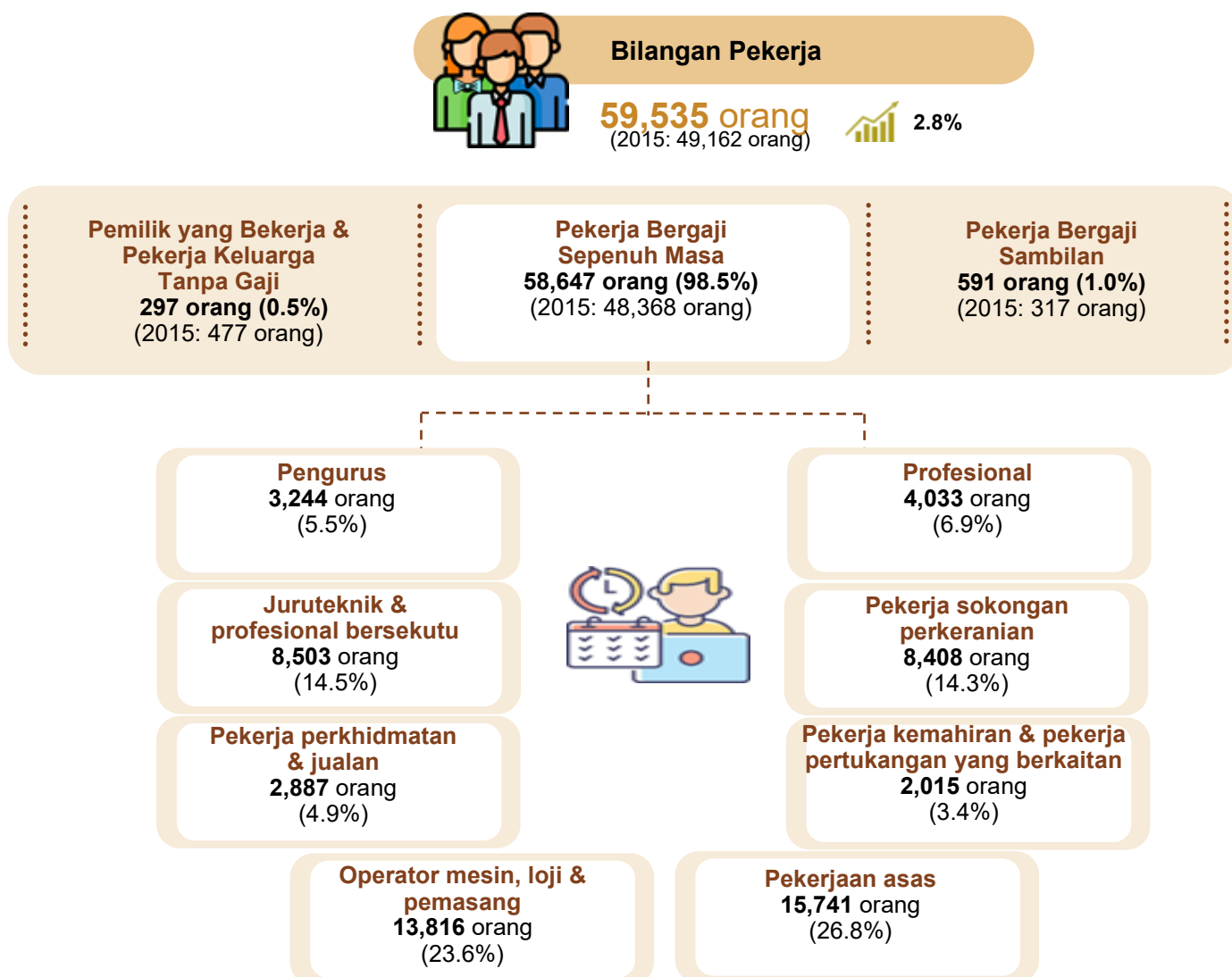
CAGR 2022/2015

7.1 BILANGAN PEKERJA MENGIKUT KATEGORI PEKERJA

Pekerja bergaji sepenuh masa merekodkan bilangan pekerja tertinggi seramai 58,647 orang dengan sumbangan 98.5 peratus berbanding pekerja bergaji sambilan (591 orang; sumbangan: 1.0%) dan pemilik yang bekerja & pekerja keluarga tanpa gaji (297 orang; sumbangan: 0.5%) seperti di **Paparan 8**.

Daripada jumlah keseluruhan pekerja bergaji sepenuh masa, kategori pekerja asas mencatatkan bilangan pekerja yang tertinggi seramai 15,741 orang dengan sumbangan 26.8 peratus. Ini diikuti dengan kategori operator mesin loji & pemasang (13,816 orang; sumbangan: 23.6%) dan juruteknik & profesional bersekutu (8,503 orang; sumbangan: 14.5%).

Paparan 8: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Kategori Pekerja, 2015 dan 2022



Nota:

(%) sumbangan

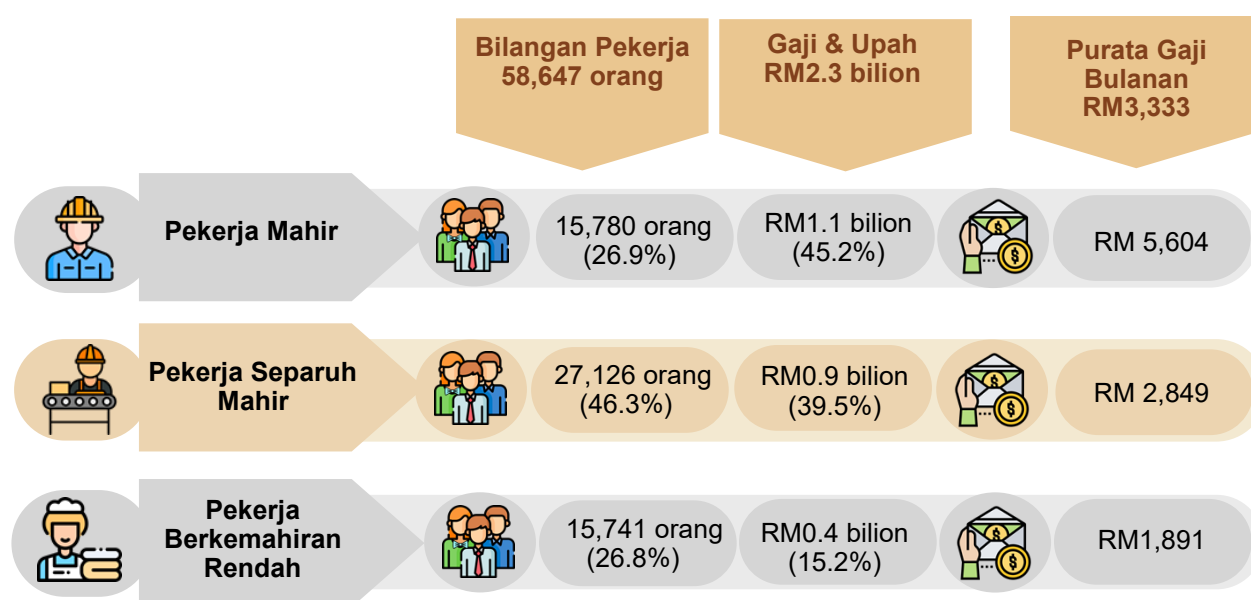
CAGR 2022/2015

7.2 BILANGAN PEKERJA MENGIKUT KATEGORI KEMAHIRAN

Dari segi tahap kemahiran, pekerja separuh mahir mencatatkan bilangan pekerja tertinggi seramai 27,126 orang (sumbangan: 46.3%), diikuti oleh pekerja mahir (15,780 orang; sumbangan: 26.9%) dan pekerja berkemahiran rendah (15,741 orang; sumbangan: 26.8%). Gaji dan upah bagi pekerja mahir merekodkan sumbangan sebanyak 45.2 peratus, berjumlah RM1.1 bilion pada tahun 2022. Sementara itu, pekerja separuh mahir dan pekerja berkemahiran rendah masing-masing menerima jumlah bayaran sebanyak RM0.9 bilion (sumbangan: 39.5%) dan RM0.4 bilion (sumbangan: 15.2%).

Pekerja mahir menerima purata gaji & upah tertinggi dengan nilai RM5,604 sebulan. Ini diikuti pekerja separuh mahir sebanyak RM2,849 sebulan dan pekerja berkemahiran rendah menerima RM1,891 sebulan seperti yang ditunjukkan di **Paparan 9**.

Paparan 9: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Kategori Kemahiran, 2022



Nota:

(%) sumbangan

7.3 BILANGAN PEKERJA MENGIKUT SIJIL TERTINGGI DIPEROLEH

Pekerja dengan kelulusan SPM/ SPM (V) atau yang setaraf adalah majoriti dalam Perkhidmatan bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan dengan jumlah 26,871 orang atau 45.1 peratus daripada jumlah pekerja pada tahun 2022. Ini diikuti oleh pekerja yang mempunyai kelulusan Diploma seramai 9,566 orang (sumbangan: 16.1%) dan kelulusan Ijazah Sarjana Muda/ Diploma Lanjutan atau yang setaraf berjumlah 7,432 orang (sumbangan: 12.5%). Baki pekerja bagi kelulusan yang lain adalah seperti di **Paparan 10**.

Analisis mengikut jantina menunjukkan Perkhidmatan Bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan didominasi oleh lelaki, iaitu seramai 47,851 orang (sumbangan: 80.4%), manakala perempuan mewakili 19.6 peratus, berjumlah 11,684 orang.

Paparan 10: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Sijil Tertinggi Diperoleh, 2022

 Sijil Tertinggi Diperoleh	Bilangan Pekerja (orang)	Lelaki 	Perempuan 
Pascasiswazah	454 (0.8%)	229	225
Ijazah Sarjana Muda / Diploma Lanjutan atau yang setaraf	7,432 (12.5%)	4,291	3,141
Diploma	9,566 (16.1%)	6,544	3,022
STPM atau yang setaraf	1,281 (2.2%)	675	606
Sijil	6,668 (11.2%)	6,233	435
SPM/ SPM (V) atau yang setaraf	26,871 (45.1%)	23,185	3,686
Di bawah taraf kelulusan SPM/ SPM (V)	7,263 (12.2%)	6,694	569
Jumlah pekerja	59,535 (100%)	47,851 (80.4%)	11,684 (19.6%)

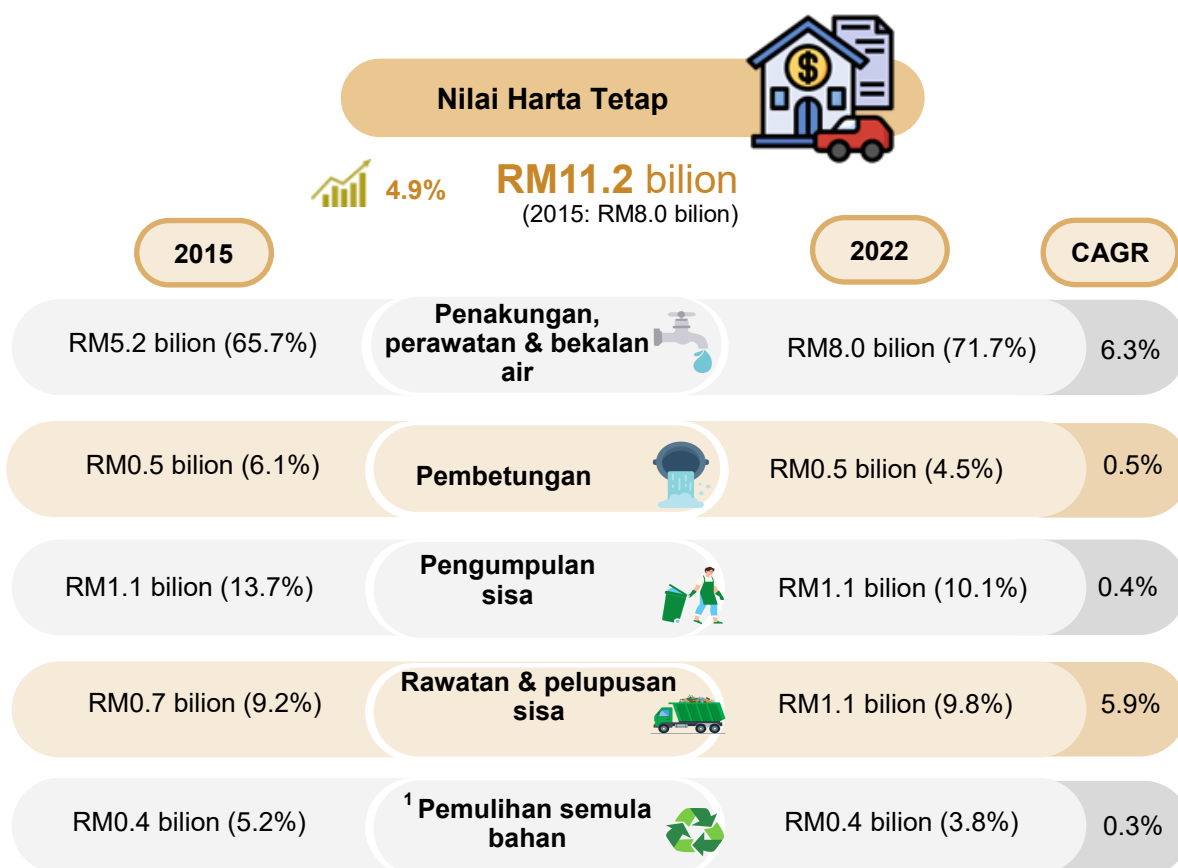
Nota:
(%) sumbangan

8. NILAI HARTA TETAP

Nilai harta tetap dalam Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan bagi tahun 2022 merekodkan RM11.2 bilion dengan peningkatan tahunan sebanyak 4.9 peratus dari tahun 2015 seperti di **Paparan 11**. Penyumbang utama nilai harta tetap pada tahun 2022 adalah Penakungan, perawatan & bekalan air dengan RM8.0 bilion atau 71.7 peratus. Ini diikuti oleh Pengumpulan sisa dengan RM1.1 bilion (sumbangan: 10.1%) dan Rawatan & pelupusan sisa berjumlah RM1.1 bilion (sumbangan: 9.8%).

Pada masa yang sama, Penakungan, perawatan & bekalan air mencatatkan pertumbuhan tahunan tertinggi sebanyak 6.3 peratus. Seterusnya adalah Rawatan & pelupusan sisa (CAGR: 5.9%) dan Pembetulan (CAGR: 0.5%).

Paparan 11: Nilai Harta Tetap bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2015 dan 2022



Nota:

¹Termasuk aktiviti pemulihan & lain-lain perkhidmatan pengurusan sisa

(%) sumbangan

CAGR 2022/2015

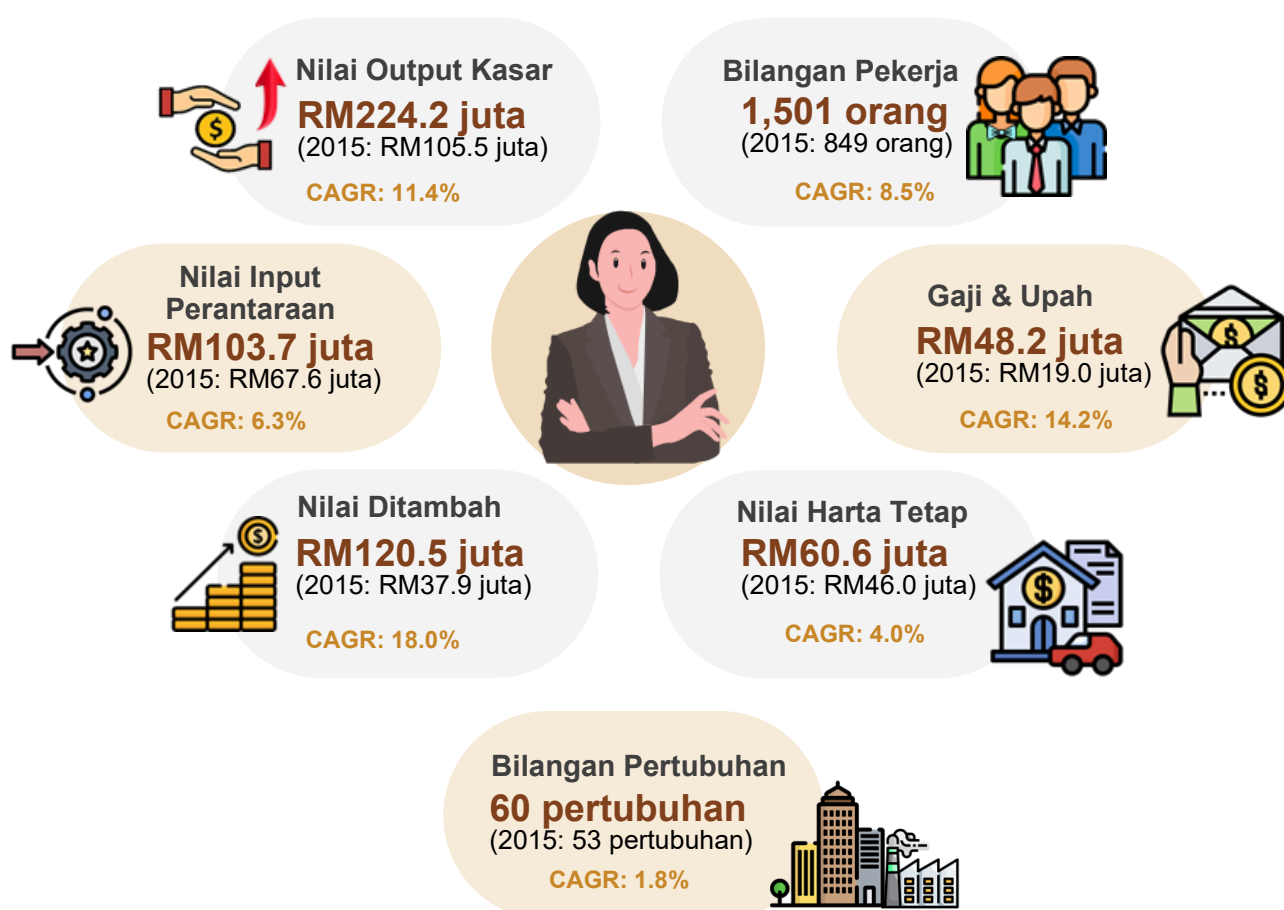
9. PERTUBUHAN MILIKAN WANITA

Pada tahun 2022, sebanyak 60 pertubuhan milikan wanita dicatatkan dalam Perkhidmatan Bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan berbanding 53 pertubuhan pada tahun 2015 dengan kadar pertumbuhan tahunan 1.8 peratus.

Pertubuhan milikan wanita ini mencecah nilai output kasar sebanyak RM224.2 juta pada 2022 (2015: RM105.5 juta; CAGR: 11.4%) manakala nilai input perantaraan direkodkan sebanyak RM103.7 juta (2015: RM67.6 juta; CAGR: 6.3%). Jumlah nilai ditambah yang dijana oleh pertubuhan milikan wanita adalah RM120.5 juta (2015: RM37.9 juta; CAGR: 18.0%).

Selain itu, pertubuhan milikan wanita mencatatkan pekerja seramai 1,501 orang pada tahun 2022 berbanding 849 orang pada tahun 2015 (CAGR: 8.5%) dengan gaji & upah sebanyak RM48.2 juta (2015: RM19.0 juta; CAGR: 14.2%). Nilai harta tetap bagi pertubuhan milikan wanita adalah sebanyak RM60.6 juta (2015: RM46.0 juta; CAGR: 4.0%) seperti di **Paparan 12**.

Paparan 12: Statistik Utama Pertubuhan Milikan Wanita bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan, 2015 dan 2022



CAGR 2022/2015

10. PRESTASI MENGIKUT NEGERI

Selangor menyumbang bilangan pertubuhan tertinggi sebanyak 327 pertubuhan memberi sumbangan sebanyak 32.4 peratus daripada keseluruhan bilangan pertubuhan dalam Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan pada tahun 2022. Ini diikuti oleh Johor 189 pertubuhan (sumbangan: 18.8%) dan Pulau Pinang 124 pertubuhan (sumbangan: 12.3%).

Selangor juga kekal merekodkan nilai output kasar tertinggi iaitu sebanyak RM5,956.0 juta (sumbangan: 31.6%), diikuti oleh Johor RM3,921.3 juta (sumbangan: 20.8%) dan W.P. Kuala Lumpur RM2,284.1 juta (sumbangan: 12.1%). Nilai input perantaraan tertinggi juga dicatatkan oleh Selangor berjumlah RM2,554.8 juta dengan sumbangan sebanyak 28.5 peratus. Ini diikuti oleh Johor dan W.P. Kuala Lumpur masing masing berjumlah RM1,560.5 juta (sumbangan: 17.4%) dan RM1,260.6 juta (sumbangan: 14.1%).

Selari dengan prestasi nilai output kasar, Selangor merekodkan nilai ditambah tertinggi iaitu RM3,401.2 juta (sumbangan: 34.3%), diikuti oleh Johor (RM2,360.8 juta; sumbangan: 23.8%) dan W.P. Kuala Lumpur (RM1,023.5 juta; sumbangan: 10.3%).

Sementara itu, Selangor turut merekodkan bilangan pekerja yang tertinggi dalam Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan iaitu seramai 13,468 orang dengan sumbangan 22.6 peratus. Ini diikuti oleh Johor 12,467 orang (sumbangan: 20.9%) dan W.P. Kuala Lumpur 8,891 orang (sumbangan: 14.9%). Tambahan pula, gaji & upah yang tertinggi disumbangkan oleh Selangor iaitu RM633.9 juta (sumbangan: 26.9%), diikuti Johor RM502.6 juta (sumbangan: 21.3%) dan W.P. Kuala Lumpur RM307.9 juta (sumbangan: 13.1%).

Pada masa yang sama, Selangor mencatatkan nilai harta tetap tertinggi sebanyak RM3,338.4 juta dengan sumbangan 29.9 peratus. Ini diikuti oleh Pulau Pinang sebanyak RM1,365.1 juta (sumbangan: 12.2%) dan Johor RM1,330.9 juta (sumbangan: 11.9%). Secara keseluruhan, Selangor merupakan penyumbang utama prestasi Perkhidmatan bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan pada tahun 2022 seperti di **Paparan 13**.

Paparan 13: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Negeri, 2022

      							
Negeri	Bilangan Pertubuhan	Nilai Output Kasar (RM juta)	Nilai Input Perantaraan (RM juta)	Nilai Ditambah (RM juta)	Bilangan Pekerja	Gaji & Upah (RM juta)	Nilai Harta Tetap (RM juta)
 MALAYSIA	1,008	18,859.1	8,956.7	9,902.4	59,535	2,358.2	11,171.0
Johor 	189 18.8%	3,921.3 20.8%	1,560.5 17.4%	2,360.8 23.8%	12,467 20.9%	502.6 21.3%	1,330.9 11.9%
Kedah 	33 3.3%	733.0 3.9%	400.9 4.5%	332.1 3.4%	3,448 5.8%	107.8 4.6%	372.3 3.3%
Kelantan 	5 0.5%	143.5 0.8%	71.2 0.8%	72.3 0.7%	822 1.4%	26.9 1.1%	885.7 7.9%
Melaka 	36 3.6%	465.8 2.5%	291.1 3.3%	174.6 1.8%	1,162 2.0%	38.3 1.6%	499.2 4.5%
Negeri Sembilan 	41 4.1%	864.1 4.6%	499.6 5.6%	364.5 3.7%	2,933 4.9%	85.1 3.6%	468.0 4.2%
Pahang 	20 2.0%	383.2 2.0%	234.8 2.6%	148.4 1.5%	2,110 3.5%	88.7 3.8%	52.3 0.5%
Pulau Pinang 	124 12.3%	1,486.7 7.9%	715.2 8.0%	771.5 7.8%	4,078 6.8%	157.2 6.7%	1,365.1 12.2%
Perak 	52 5.2%	580.1 3.1%	234.0 2.6%	346.1 3.5%	1,528 2.6%	74.5 3.2%	417.9 3.7%
Perlis 	6 0.6%	58.5 0.3%	27.9 0.3%	30.6 0.3%	287 0.5%	8.2 0.3%	6.8 0.1%
Selangor 	327 32.4%	5,956.0 31.6%	2,554.8 28.5%	3,401.2 34.3%	13,468 22.6%	633.9 26.9%	3,338.4 29.9%
Terengganu 	12 1.2%	212.0 1.1%	101.6 1.1%	110.4 1.1%	839 1.4%	33.9 1.4%	108.1 1.0%
Sabah 	19 1.9%	921.0 4.9%	542.3 6.1%	378.7 3.8%	2,868 4.8%	97.2 4.1%	209.8 1.9%
Sarawak 	50 5.0%	776.2 4.1%	419.8 4.7%	356.5 3.6%	4,422 7.4%	185.4 7.9%	776.0 6.9%
W.P. Kuala Lumpur 	90 8.9%	2,284.1 12.1%	1,260.6 14.1%	1,023.5 10.3%	8,891 14.9%	307.9 13.1%	1,325.1 11.9%
W.P. Labuan 	4 0.4%	73.7 0.4%	42.5 0.5%	31.2 0.3%	212 0.4%	10.6 0.4%	15.5 0.1%

Nota: % Peratus Sumbangan

1. INTRODUCTION

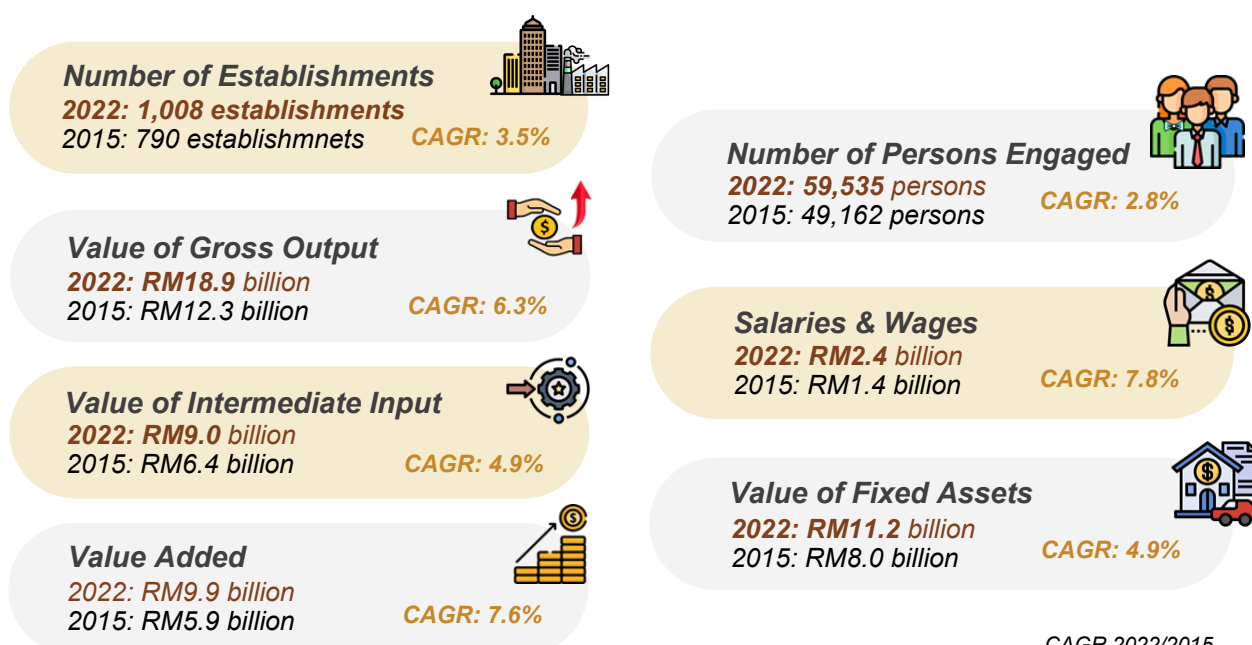
This publication presents statistics on the Water supply; sewerage, waste management, and remediation activities obtained from the Economic Census 2023 for reference year 2022. The Water supply; sewerage, waste management, and remediation activities encompasses six main activities which are Water collection, treatment & supply; Sewerage; Waste collection; Waste treatment & disposal; Material recovery; and Remediation activities & other waste management services.

2. PERFORMANCE OF WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT, AND REMEDIATION ACTIVITIES

Water supply; sewerage, waste management, and remediation activities in 2022 registered a total of 1,008 establishments with an annual growth rate of 3.5 per cent compared to 2015. The value of gross output amounted to RM18.9 billion, increased by 6.3 per cent annually from 2015. In line with the growth of gross output value, the value of intermediate input also increased to record RM9.0 billion, with an annual growth rate of 4.9 per cent, resulting in value added of RM9.9 billion in 2022 (2015: RM5.9 billion).

This services recorded 59,535 number of persons engaged in 2022 (2015: 49,162 persons). During the same period, the salaries and wages increased to RM2.4 billion in 2022 (2015: RM1.4 billion). Meanwhile, the value of fixed asset owned by establishments in the Water supply; sewerage, waste management, and remediation activities in 2022 amounted to RM11.2 billion (2015: RM8.0 billion), with an annual growth rate of 4.9 per cent as indicated in **Exhibit 1**.

Exhibit 1: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services, 2015 and 2022

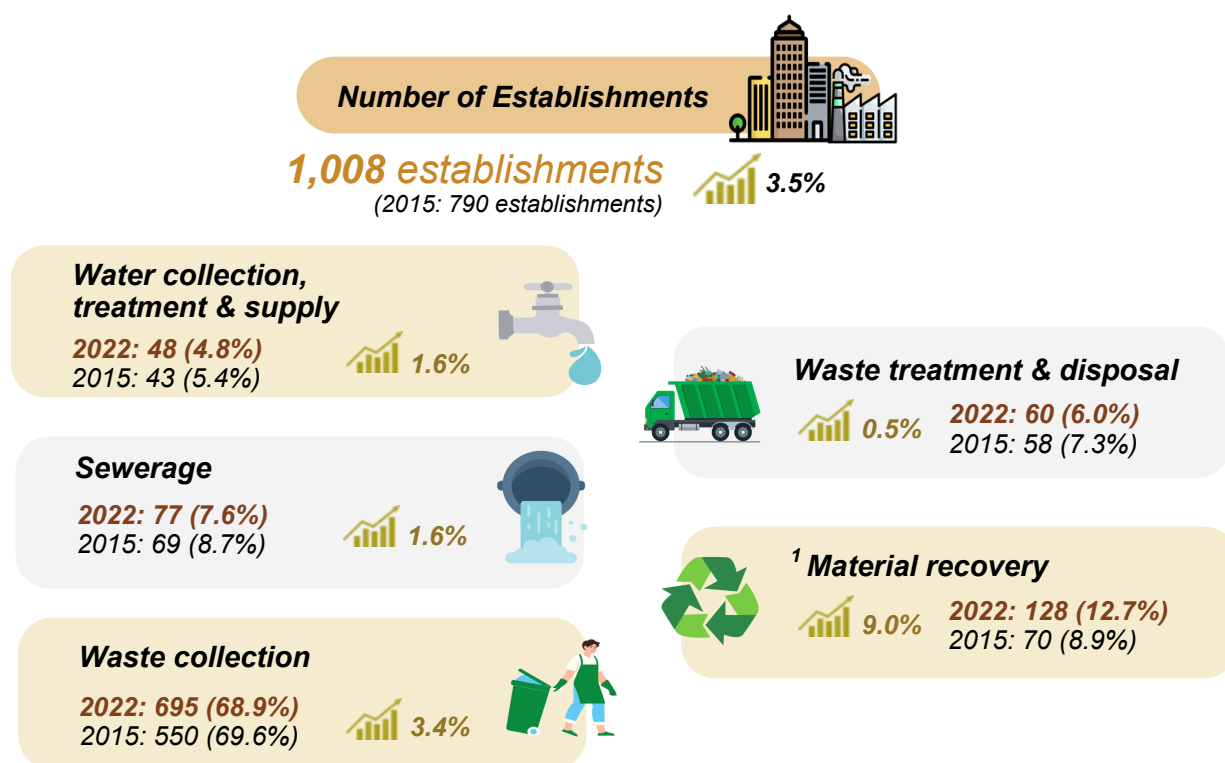


3. NUMBER OF ESTABLISHMENTS

In 2022, a total of 1,008 establishments were operating in the Water supply; sewerage, waste management and remediation activities, as compared to 790 establishments in 2015. Waste collection activities recorded the highest number of establishments, totalling 695 establishments or 68.9 per cent. This was followed by Material recovery activities with 128 establishments accounting for 12.7 per cent, and Sewerage activities (77 establishments; share: 7.6%) as shown in **Exhibit 2**.

Throughout 2015 to 2022, the number of establishments increased by 218 establishments, with an annual growth rate of 3.5 per cent. The highest growth was recorded by Material recovery (CAGR: 9.0%), followed by Waste collection (CAGR: 3.4%), Sewerage (CAGR: 1.6%) and Water collection, treatment & supply (CAGR: 1.6%).

Exhibit 2: Number of Establishments for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services
 (%) share

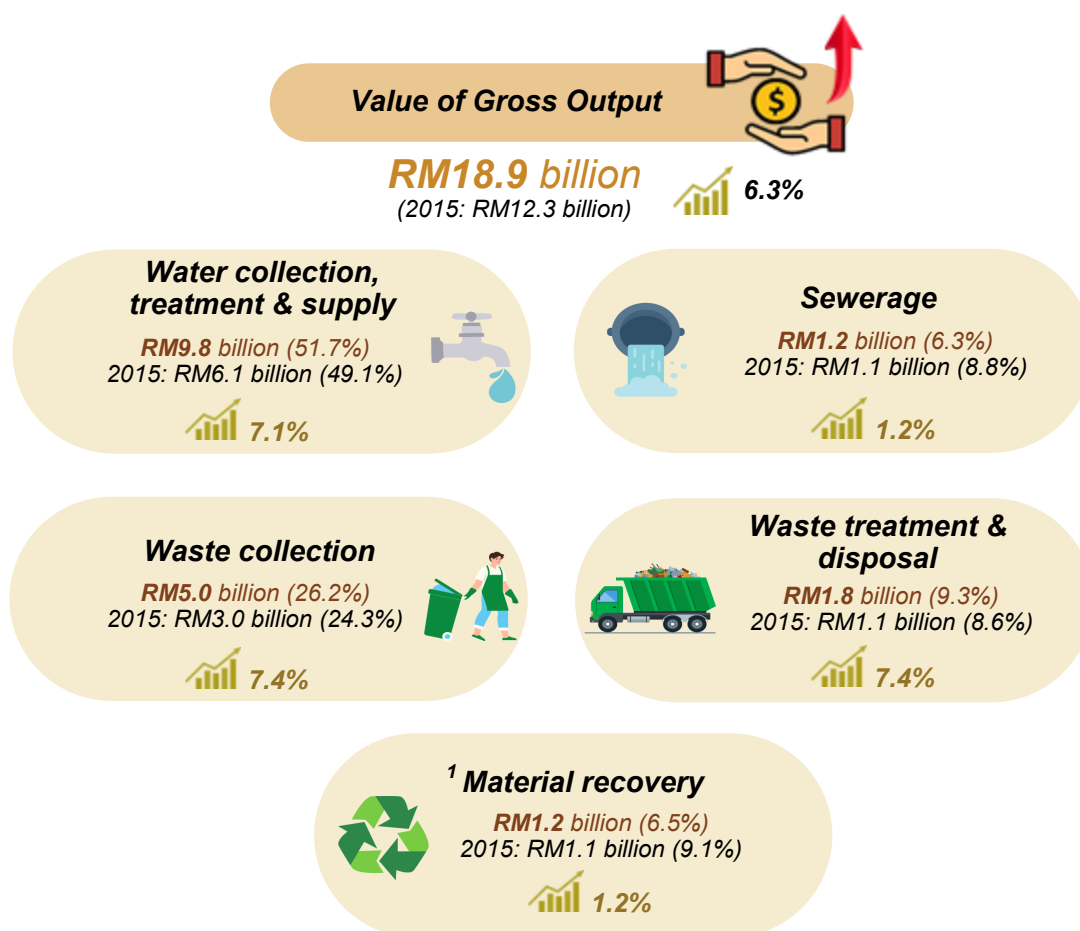
CAGR 2022/2015

4. VALUE OF GROSS OUTPUT

Value of gross output in 2022 registered RM18.9 billion, with an annual growth rate of 6.3 per cent compared to 2015. Activities with the notable growth were Waste collection (CAGR: 7.4%), Waste treatment & disposal (CAGR: 7.4%) and Water collection, treatment & supply (CAGR: 7.1%) as depicted in **Exhibit 3**.

The Water collection, treatment & supply remained as the highest value of gross output amounted to RM9.8 billion with a share of 51.7 per cent. This was followed by Waste collection activity (RM5.0 billion; share: 26.2%) and Waste treatment & disposal (RM1.8 billion; share: 9.3%). Cumulatively, these three activities accounted for 87.2 per cent of the total gross output value in 2022.

Exhibit 3: Value of Gross Output for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

(%) share

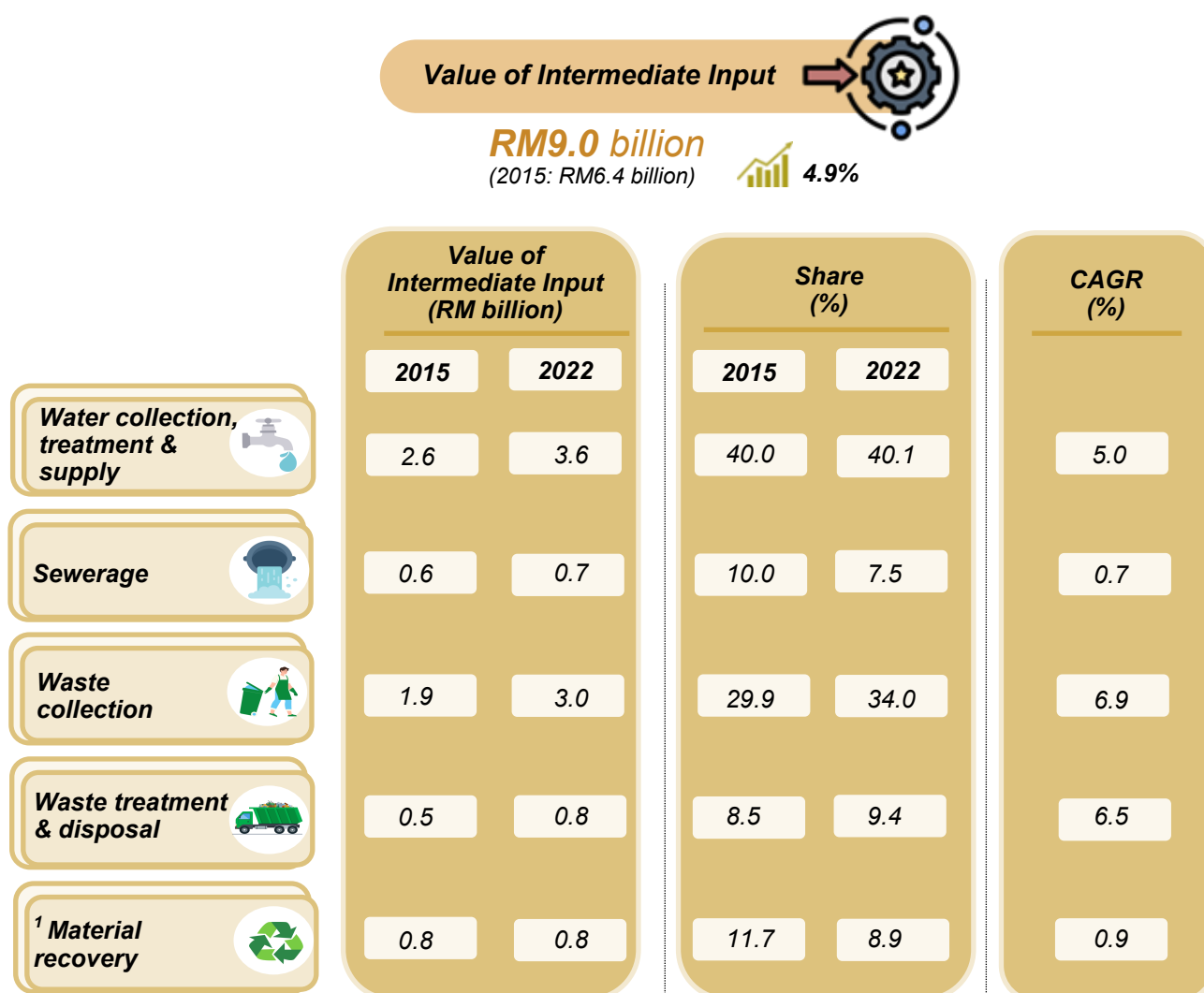
CAGR 2022/2015

5. VALUE OF INTERMEDIATE INPUT

Water supply; sewerage, waste management and remediation activities recorded the value of intermediate input amounted to RM9.0 billion in 2022, grew annually by 4.9 per cent compared to RM6.4 billion in 2015. Waste collection activities recorded the highest annual growth at 6.9 per cent, followed by Waste treatment & disposal (CAGR: 6.5%) and Water collection, treatment & supply (CAGR: 5.0%) as presented in **Exhibit 4**.

In terms of activities, Water collection, treatment & supply contributed the highest share, making up 40.1 per cent with a value of RM3.6 billion (2015: RM2.6 billion). Meanwhile, Waste collection accounted for 34.0 per cent, recording RM3.0 billion (2015: RM1.9 billion), followed by Waste treatment & disposal contributing 9.4 per cent with a value of RM0.8 billion (2015: RM0.5 billion).

Exhibit 4: Value of Intermediate Input for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

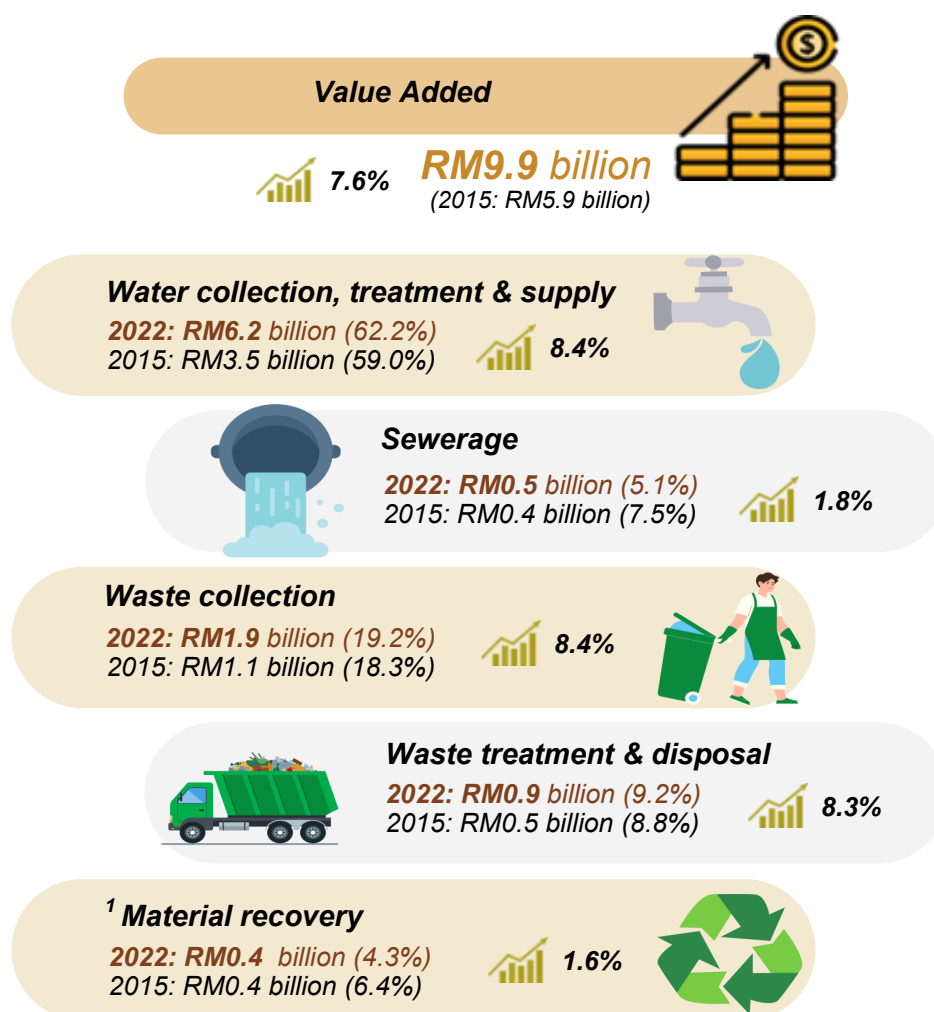
 CAGR 2022/2015

6. VALUE ADDED

Value added for Water supply; sewerage, waste management and remediation activities increased from RM5.9 billion in 2015 to RM9.9 billion in 2022 with a growth rate of 7.6 per cent per annum (**Exhibit 5**). Water collection, treatment, and supply activities remained as the main contributor with the value of RM6.2 billion (share: 62.2%) in 2022. The second contributor was the Waste collection, with RM1.9 billion (share: 19.2%) and followed by the Waste treatment & disposal with RM0.9 billion (share 9.2%).

Meanwhile, Water collection, treatment & supply activities recorded the highest annual growth at 8.4 per cent, followed by Waste collection (CAGR: 8.4%) and Waste treatment & disposal (CAGR: 8.3%).

Exhibit 5: Value Added for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

(%) share

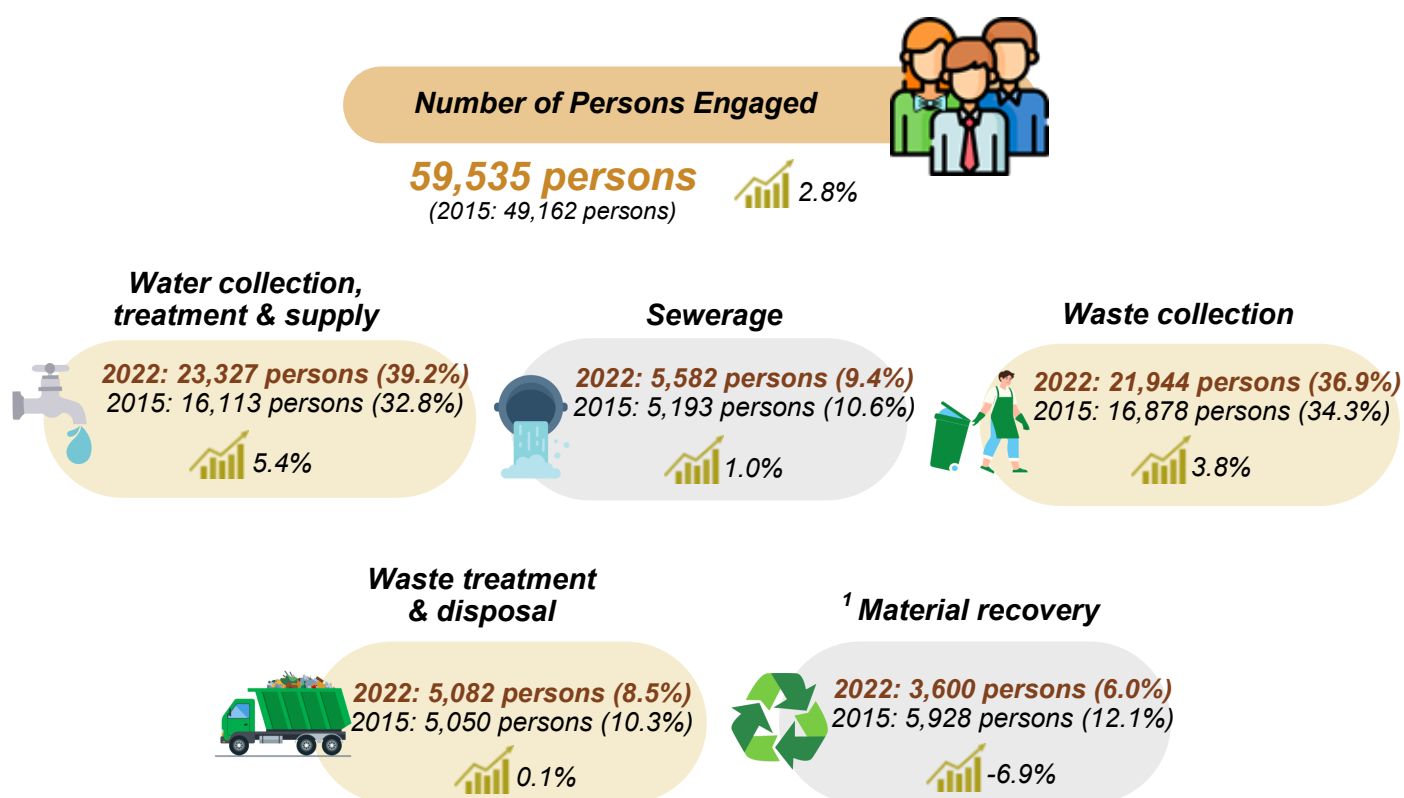
 CAGR 2022/2015

7. NUMBER OF PERSONS ENGAGED AND SALARIES & WAGES

Water supply; sewerage, waste management and remediation activities registered 59,535 number of persons engaged in 2022, up from 49,162 persons in 2015, representing an annual growth rate of 2.8 per cent as illustrated in **Exhibit 6**.

Water collection, treatment & supply activities recorded the highest number of persons engaged with 23,327 persons, contributed 39.2 per cent. This was followed by Waste collection with 21,944 persons (share: 36.9%) and Sewerage with 5,582 persons (share: 9.4%). These three activities accounted for more than half (share: 85.5%) of the total persons engaged.

Exhibit 6: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

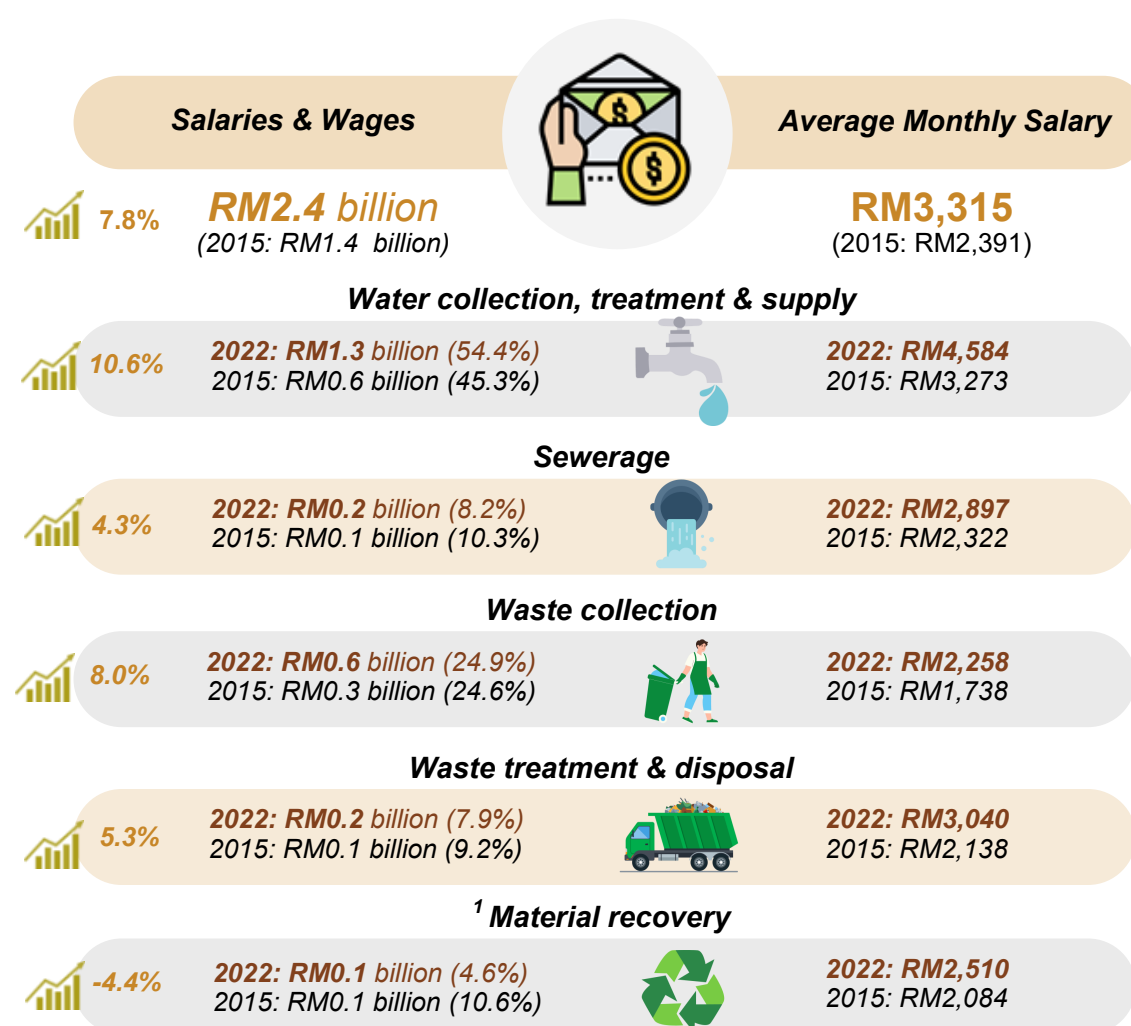
(%) share

CAGR 2022/2015

The salaries & wages paid in 2022 totalled RM2.4 billion compared to RM1.4 billion in 2015, resulting in an annual growth rate of 7.8 per cent. Water collection, treatment & supply activities recorded the highest salaries & wages at RM1.3 billion, contributing 54.4 per cent. This was followed by Waste collection with RM0.6 billion (share: 24.9%) and Sewerage with RM0.2 billion (share: 8.2%) as shown in **Exhibit 7**.

The average monthly salaries & wages for Water supply; sewerage, waste management and remediation activities amounted to RM3,315 in 2022. The highest average monthly salary was recorded in Water collection, treatment & supply activities at RM4,584, followed by Waste treatment & disposal (RM3,040) and Sewerage (RM2,897).

Exhibit 7: Salaries & Wages and Average Monthly Salary for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

(%) share

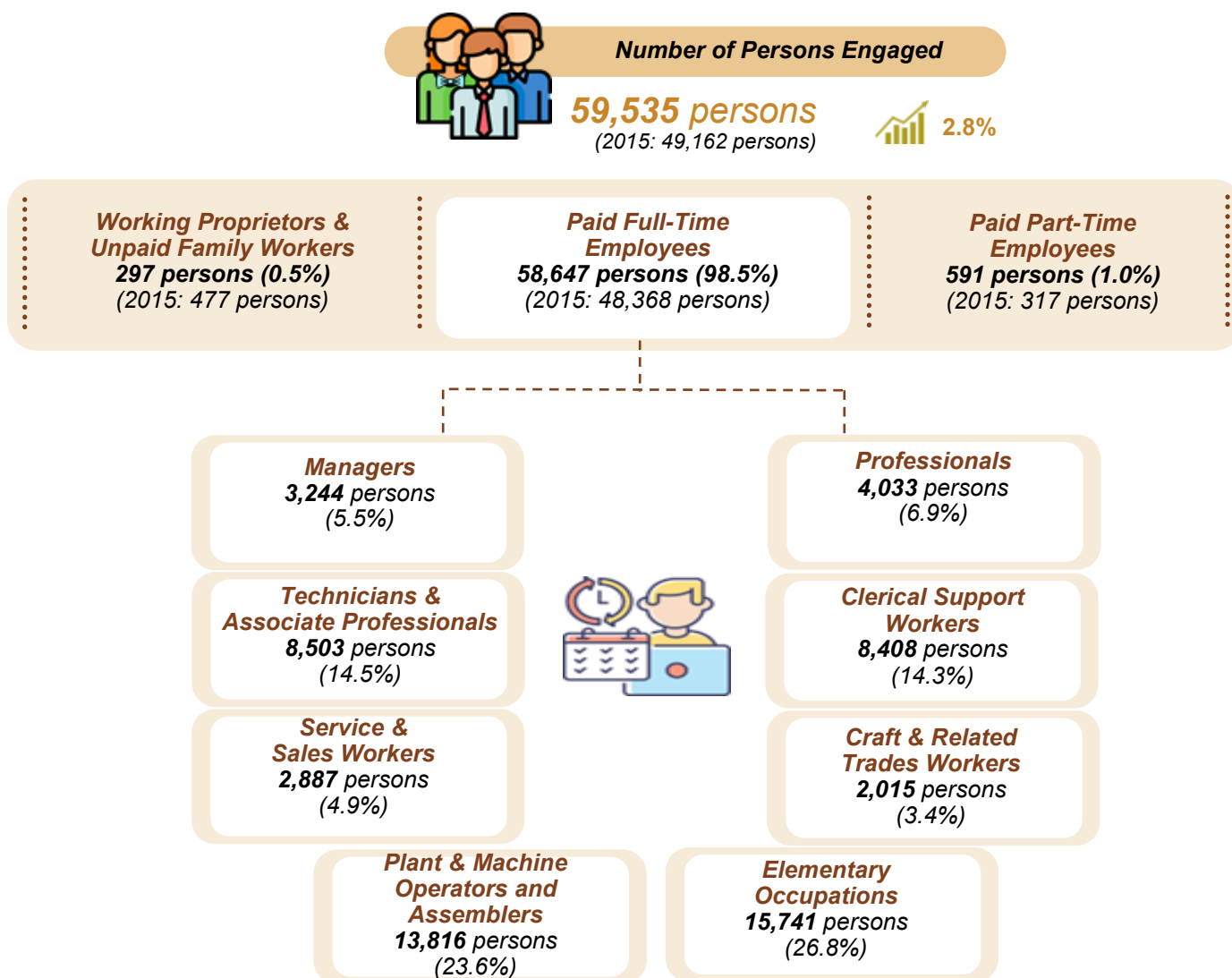
CAGR 2022/2015

7.1 NUMBER OF PERSONS ENGAGED BY CATEGORY OF WORKERS

Paid full-time employees recorded the highest number of persons engaged, totalling 58,647 persons with a share of 98.5 per cent, compared to paid part-time employees (591 persons; share: 1.0%) and working proprietors & unpaid family workers (297 persons; share: 0.5%) as portrayed in **Exhibit 8**.

Among paid full-time employees, the category of elementary occupations reported the highest number of persons engaged with 15,741 persons contributing 26.8 per cent share. This was followed by plant & machine operators and assemblers (13,816 persons; share: 23.6%) and technicians & associate professionals (8,503 persons; share: 14.5%).

Exhibit 8: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Category of Workers, 2015 and 2022



Notes:

(%) share

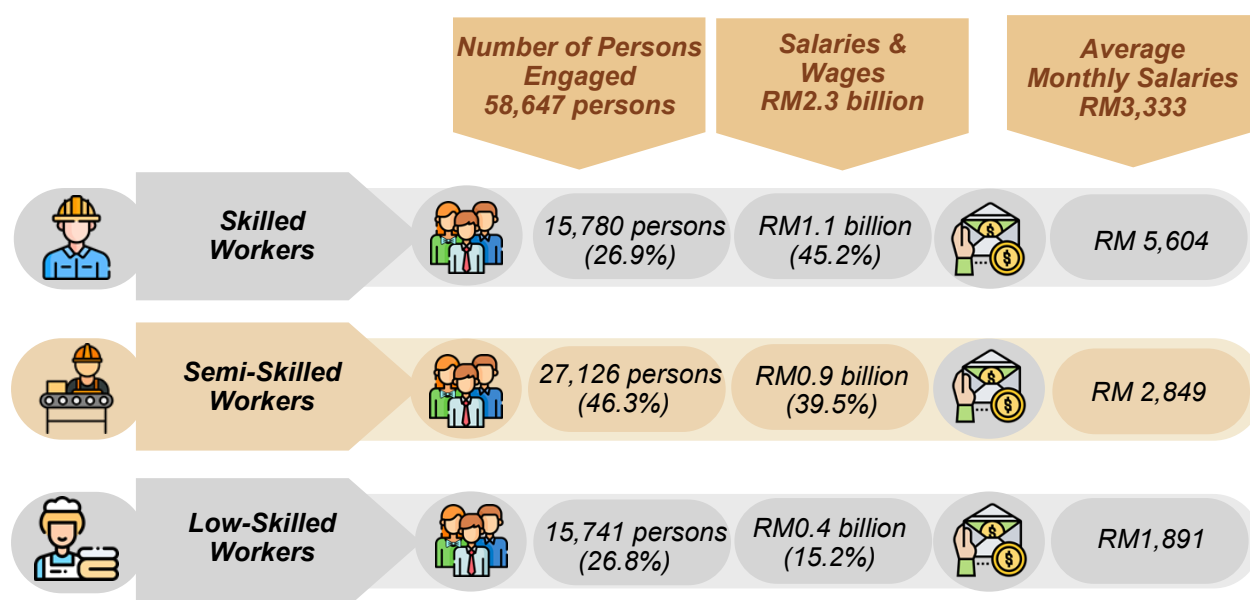
CAGR 2022/2015

7.2 NUMBER OF PERSONS ENGAGED BY CATEGORY OF SKILLS

In terms of skill levels, semi-skilled workers recorded the highest number of persons engaged with 27,126 persons (share: 46.3%), followed by skilled workers (15,780 persons; share: 26.9%) and low-skilled workers (15,741 persons; share: 26.8%). Salaries & wages for skilled workers registered 45.2 per cent share, amounting to RM1.1 billion in 2022. Subsequently, semi-skilled and low-skilled employees received a total payout of RM0.9 billion (share: 39.5%) and RM0.4 billion (share: 15.2%) respectively.

Skilled workers received the highest average monthly salary at RM5,604 per month. This was followed by semi-skilled workers at RM2,849 per month and low-skilled workers at RM1,891 per month as shown in **Exhibit 9**.

Exhibit 9: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Category of Skills, 2022



Note:
(%) share

7.3 NUMBER OF PERSONS ENGAGED BY HIGHEST CERTIFICATE OBTAINED

In 2022, employees with SPM/ SPM (V) qualifications or equivalent comprised the majority in Water supply; sewerage, waste management and remediation activities, totalling 26,871 persons or 45.1 per cent of the total number of persons engaged. This was followed by employees with Diploma holders, numbering 9,566 persons (share: 16.1%), and Bachelor/ Advanced Diploma or equivalent, totalling 7,432 persons (share: 12.5%). The remaining employees with other qualifications are as presented in **Exhibit 10**.

Analysis by gender revealed that the Water supply; sewerage, waste management and remediation activities was predominantly by male, with 47,851 persons (share: 80.4%), while female represented 19.6 per cent, amounting to 11,684 persons.

Exhibit 10: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Highest Certificate Obtained, 2022

 Highest Certificate Obtained	Total Employees (persons)	Male 	Female 
Postgraduate	454 (0.8%)	229	225
Bachelor/ Advanced diploma or equivalent	7,432 (12.5%)	4,291	3,141
Diploma	9,566 (16.1%)	6,544	3,022
STPM or equivalent	1,281 (2.2%)	675	606
Certificate	6,668 (11.2%)	6,233	435
SPM/ SPM (V) or equivalent	26,871 (45.1%)	23,185	3,686
Below SPM/ SPM (V) qualification	7,263 (12.2%)	6,694	569
Total Employees	59,535 (100%)	47,851 (80.4%)	11,684 (19.6%)

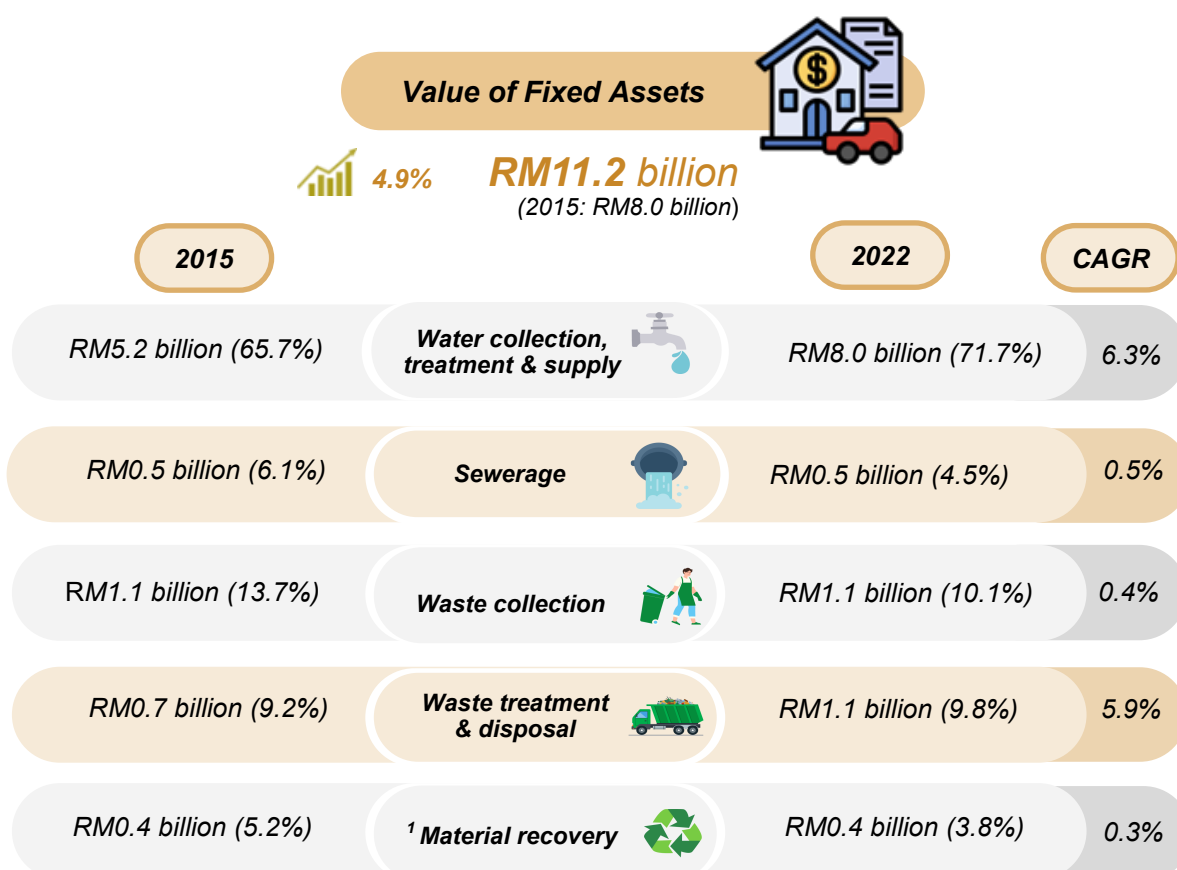
Note:
(%) share

8. VALUE OF FIXED ASSETS

The value of fixed assets for Water supply; sewerage, waste management and remediation activities services in 2022 generated RM11.2 billion, with an annual increase of 4.9 per cent from 2015, as shown in **Exhibit 11**. The main contributor to the value of fixed assets in 2022 was Water collection, treatment & supply with RM8.0 billion or 71.7 per cent. This was followed by Waste collection with RM1.1 billion (share: 10.1%) and Waste treatment & disposal amounting to RM1.1 billion (share: 9.8%).

Simultaneously, Water collection, treatment & supply registered the highest annual growth of 6.3 per cent. This was followed by Waste treatment & disposal (CAGR: 5.9%) and Sewerage (CAGR: 0.5%).

Exhibit 11: Value of Fixed Assets for Water Supply; Sewerage, Waste Management and Activities Services by Activity, 2015 and 2022



Notes:

¹ Includes Remediation activities & other waste management services

(%) share

CAGR 2022/2015

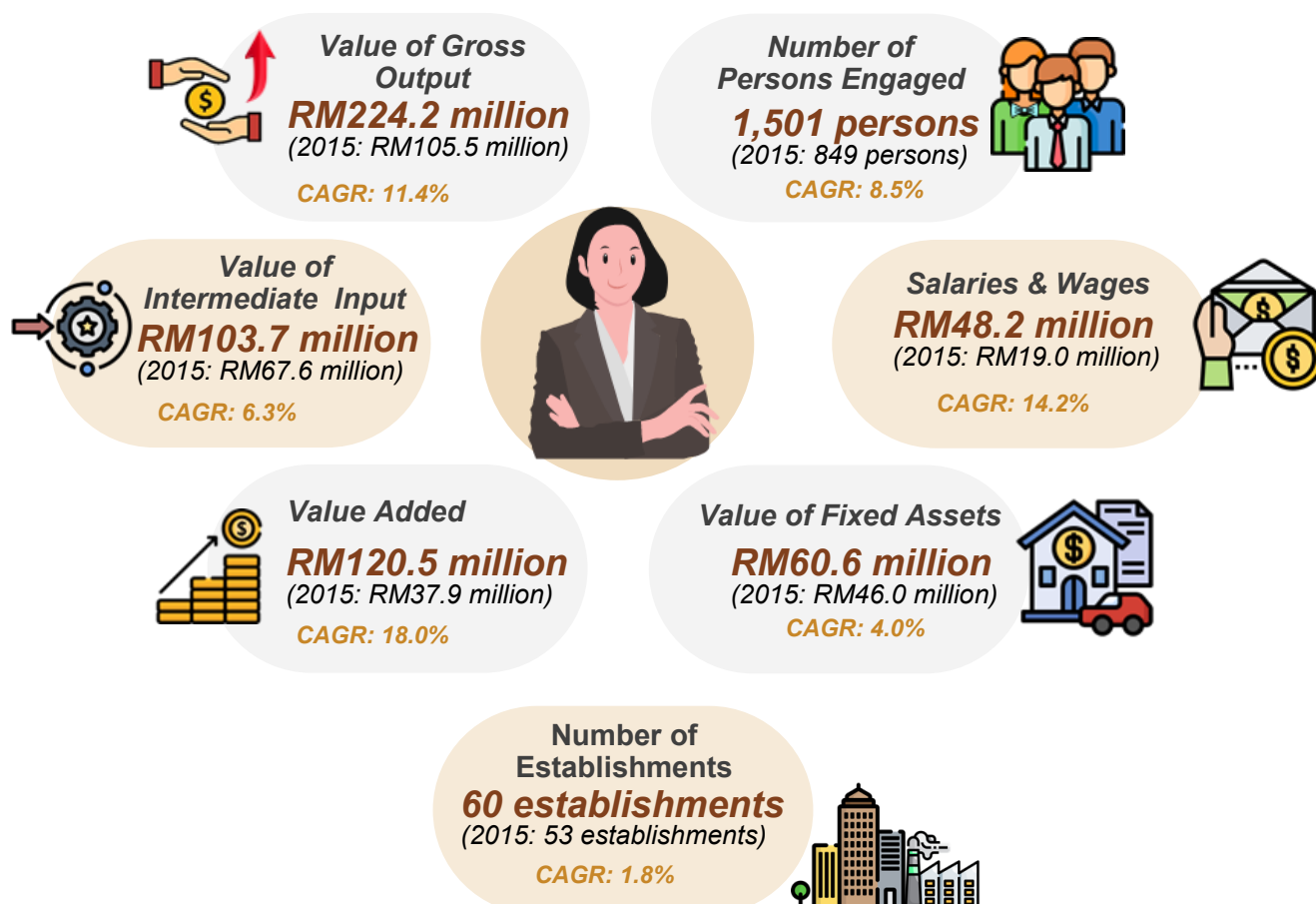
9. WOMEN-OWNED ESTABLISHMENTS

In 2022, there were 60 women-owned establishments recorded in the Water supply; sewerage, waste management and remediation activities services, up from 53 establishments in 2015, representing an annual growth rate of 1.8 per cent.

These women-owned establishments reached a gross output value of RM224.2 million in 2022 (2015: RM105.5 million; CAGR: 11.4%), while intermediate input value was recorded at RM103.7 million (2015: RM67.6 million; CAGR: 6.3%). The total value added generated by women-owned establishments was RM120.5 million (2015: RM37.9 million; CAGR: 18.0%).

Additionally, women-owned establishments employed 1,501 persons in 2022, an increase from 849 persons in 2015 (CAGR: 8.5%), with salaries & wages totalling RM48.2 million (2015: RM19.0 million; CAGR: 14.2%). The fixed asset value for women-owned establishments was RM60.6 million (2015: RM46.0 million; CAGR: 4.0%), as shown in **Exhibit 12**.

Exhibit 12: Principal Statistics of Women-owned Establishments for Water Supply; Sewerage, Waste Management and Remediation Activities Services, 2015 and 2022



CAGR 2022/2015

10. PERFORMANCE BY STATE

Selangor contributed the highest number of establishments with 327 establishments, contributing for 32.4 per cent of the total number of establishments in Water supply; sewerage, waste management and remediation activities services in 2022. This was followed by Johor with 189 establishments (share: 18.8%) and Pulau Pinang with 124 establishments (share: 12.3%).

Selangor also recorded the highest gross output value at RM5,956.0 million (share: 31.6%), followed by Johor with RM3,921.3 million (share: 20.8%) and W.P. Kuala Lumpur with RM2,284.1 million (share: 12.1%). The highest intermediate input value was also recorded by Selangor, totalling RM2,554.8 million with a share of 28.5 per cent. This was followed by Johor and W.P. Kuala Lumpur with RM1,560.5 million (share: 17.4%) and RM1,260.6 million (share: 14.1%), respectively.

In line with the gross output performance, Selangor led the highest value added at RM3,401.2 million (share: 34.3%), followed by Johor with RM2,360.8 million (share: 23.8%) and W.P. Kuala Lumpur with RM1,023.5 million (share: 10.3%).

Meanwhile, Selangor also recorded the highest number of persons engaged in the Water supply; sewerage, waste management and remediation activities services, totalling 13,468 persons with a share of 22.6 per cent. This was followed by Johor with 12,467 persons (share: 20.9%) and W.P. Kuala Lumpur with 8,891 persons (share: 14.9%). Additionally, Selangor contributed the highest salaries & wages amounting to RM633.9 million (share: 26.9%), followed by Johor RM502.6 million (share: 21.3%) and W.P. Kuala Lumpur RM307.9 million (share: 13.1%).

Concurrently, Selangor reported the highest fixed asset value at RM3,338.4 million, contributed 29.9 per cent share, followed by Pulau Pinang with RM1,365.1 million (share: 12.2%) and Johor RM1,330.9 million (share: 11.9%). Overall, Selangor was the leading contributor to the performance of the Water supply; sewerage, waste management, and remediation activities services in 2022, as depicted in **Exhibit 13**.

SUMMARY OF FINDINGS

Exhibit 13: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by State, 2022

State	 Number of Establishments	 Value of Gross Output (RM million)	 Value of Intermediate Input (RM million)	 Value Added (RM million)	 Number of Persons Engaged	 Salaries & Wages (RM million)	 Value of Fixed Assets (RM million)
 MALAYSIA	1,008	18,859.1	8,956.7	9,902.4	59,535	2,358.2	11,171.0
Johor 	189 18.8%	3,921.3 20.8%	1,560.5 17.4%	2,360.8 23.8%	12,467 20.9%	502.6 21.3%	1,330.9 11.9%
Kedah 	33 3.3%	733.0 3.9%	400.9 4.5%	332.1 3.4%	3,448 5.8%	107.8 4.6%	372.3 3.3%
Kelantan 	5 0.5%	143.5 0.8%	71.2 0.8%	72.3 0.7%	822 1.4%	26.9 1.1%	885.7 7.9%
Melaka 	36 3.6%	465.8 2.5%	291.1 3.3%	174.6 1.8%	1,162 2.0%	38.3 1.6%	499.2 4.5%
Negeri Sembilan 	41 4.1%	864.1 4.6%	499.6 5.6%	364.5 3.7%	2,933 4.9%	85.1 3.6%	468.0 4.2%
Pahang 	20 2.0%	383.2 2.0%	234.8 2.6%	148.4 1.5%	2,110 3.5%	88.7 3.8%	52.3 0.5%
Pulau Pinang 	124 12.3%	1,486.7 7.9%	715.2 8.0%	771.5 7.8%	4,078 6.8%	157.2 6.7%	1,365.1 12.2%
Perak 	52 5.2%	580.1 3.1%	234.0 2.6%	346.1 3.5%	1,528 2.6%	74.5 3.2%	417.9 3.7%
Perlis 	6 0.6%	58.5 0.3%	27.9 0.3%	30.6 0.3%	287 0.5%	8.2 0.3%	6.8 0.1%
Selangor 	327 32.4%	5,956.0 31.6%	2,554.8 28.5%	3,401.2 34.3%	13,468 22.6%	633.9 26.9%	3,338.4 29.9%
Terengganu 	12 1.2%	212.0 1.1%	101.6 1.1%	110.4 1.1%	839 1.4%	33.9 1.4%	108.1 1.0%
Sabah 	19 1.9%	921.0 4.9%	542.3 6.1%	378.7 3.8%	2,868 4.8%	97.2 4.1%	209.8 1.9%
Sarawak 	50 5.0%	776.2 4.1%	419.8 4.7%	356.5 3.6%	4,422 7.4%	185.4 7.9%	776.0 6.9%
W.P. Kuala Lumpur 	90 8.9%	2,284.1 12.1%	1,260.6 14.1%	1,023.5 10.3%	8,891 14.9%	307.9 13.1%	1,325.1 11.9%
W.P. Labuan 	4 0.4%	73.7 0.4%	42.5 0.5%	31.2 0.3%	212 0.4%	10.6 0.4%	15.5 0.1%

Note: % Percentage Share



BAHAGIAN *PART* **3**

JADUAL STATISTIK *STATISTICAL TABLES*

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Jadual 1: Statistik Utama Perkhidmatan Bekalan Air; Pembentukan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2010, 2015 dan 2022

Table 1: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2010, 2015 and 2022

Aktiviti <i>Activity</i>	Tahun <i>Year</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
			(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah/ Total	2022	1,008	18,859,094	8,956,703	9,902,391	59,535	2,358,153	11,170,983
	2015	790	12,329,415	6,406,913	5,922,502	49,162	1,397,720	7,974,171
	2010	601	7,846,982	4,311,558	3,535,425	25,313	667,388	5,255,822
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>	2022	48	9,753,205	3,592,934	6,160,270	23,327	1,283,041	8,011,835
	2015	43	6,051,969	2,560,281	3,491,689	16,113	632,908	5,240,289
	2010	77	4,621,823	1,894,058	2,727,766	11,317	369,137	3,468,368
Pembetulan <i>Sewerage</i>	2022	77	1,179,928	673,712	506,216	5,582	193,766	507,242
	2015	69	1,088,257	641,576	446,682	5,193	144,289	489,979
	2010	33	723,230	513,921	209,309	3,694	111,411	1,026,175
Pengumpulan sisa <i>Waste collection</i>	2022	695	4,950,267	3,047,728	1,902,539	21,944	588,322	1,127,720
	2015	550	2,997,472	1,912,498	1,084,974	16,878	343,507	1,094,056
	2010	423	1,372,562	1,020,204	352,358	8,377	135,647	274,057
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>	2022	60	1,752,236	841,353	910,883	5,082	185,377	1,098,250
	2015	58	1,064,170	542,360	521,810	5,050	129,282	733,881
	2010	17	516,240	337,828	178,412	671	26,495	250,096
Pemulihan semula bahan <i>Material recovery</i>	2022	128	1,223,459	800,976	422,483	3,600	107,648	425,936
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>	2015	70	1,127,546	750,199	377,347	5,928	147,734	415,967
	2010	51	613,127	545,547	67,580	1,254	24,698	237,126

Jadual 2: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022

Table 2: Principal Statistics of Water supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022

Aktiviti Activity	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output (RM '000)	Nilai input perantaraan Value of intermediate input (RM '000)	Nilai ditambah Value added (RM '000)	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages (RM '000)	Nilai harta tetap Value of fixed assets (RM '000)
Jumlah/ Total	1,008	18,859,094	8,956,703	9,902,391	59,535	2,358,153	11,170,983
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>	48	9,753,205	3,592,934	6,160,270	23,327	1,283,041	8,011,835
Penulenan dan pengagihan air untuk tujuan bekalan air <i>Purification and distribution of water for water supply purposes</i>	48	9,753,205	3,592,934	6,160,270	23,327	1,283,041	8,011,835
Penyahmasinan air laut atau bawah tanah untuk menghasilkan air sebagai kepentingan produk utama <i>Desalting of sea or ground water to produce water as the principal product of interest</i>							
Pembetulan <i>Sewerage</i>	77	1,179,928	673,712	506,216	5,582	193,766	507,242
Pembetulan dan aktiviti-aktiviti yang seumpamanya <i>Sewerage and similar activities</i>	77	1,179,928	673,712	506,216	5,582	193,766	507,242
Pengumpulan sisa <i>Waste collection</i>	695	4,950,267	3,047,728	1,902,539	21,944	588,322	1,127,720
Pengumpulan sisa pepejal yang tidak berbahaya di kawasan setempat <i>Collection of non-hazardous solid waste within a local area</i>	149	2,090,566	1,367,023	723,543	9,271	246,021	630,445

Jadual 2: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022 (samb.)

Table 2: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022 (cont'd)

Aktiviti Activity	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output (RM '000)	Nilai input perantaraan Value of intermediate input (RM '000)	Nilai ditambah Value added (RM '000)	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages (RM '000)	Nilai harta tetap Value of fixed assets (RM '000)
Pengumpulan bahan kitar semula <i>Collection of recyclable materials</i>	420	1,749,721	988,892	760,828	5,333	159,407	316,629
Pengumpulan sampah dalam tong sampah di kawasan awam <i>Collection of refuse in litter-bins in public places</i>	51	781,884	460,931	320,953	6,108	148,719	100,261
Pengumpulan sisa pembinaan dan runtuhan <i>Collection of construction and demolition waste</i>	33	36,420	19,455	16,965	300	8,384	8,030
Operasi stesen pemindahan pembuangan sisa tidak berbahaya <i>Operation of waste transfer stations for non-hazardous waste</i>	3	2,484	1,171	1,313	16	464	521
Pengumpulan sisa berbahaya <i>Collection of hazardous waste</i>	39	289,193	210,256	78,937	916	25,326	71,834
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>	60	1,752,236	841,353	910,883	5,082	185,377	1,098,250
Rawatan dan pelupusan sisa tidak berbahaya <i>Treatment and disposal of non- hazardous waste</i>	42	1,201,481	542,545	658,935	3,312	117,609	814,291
Rawatan dan pelupusan sisa berbahaya <i>Treatment and disposal of hazardous</i>	18	550,755	298,807	251,948	1,770	67,768	283,960

Jadual 2: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022 (samb.)

Table 2: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022 (cont'd)

Aktiviti <i>Activity</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Pemulihan semula bahan <i>Material recovery</i>							
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>	128	1,223,459	800,976	422,483	3,600	107,648	425,936
Meremukkan secara mekanikal sisa logam <i>Mechanical crushing of metal waste</i>	32	323,855	195,110	128,745	1,098	31,011	26,936
Meleraikan peralatan automobil, komputer, televisyen dan peralatan lain untuk pemulihan bahan <i>Dismantling of automobiles, computers, televisions and other equipment for material recover</i>	11	385,718	261,836	123,882	632	16,196	98,578
Memulih guna getah seperti tayar terpakai untuk menghasilkan bahan mentah sekunder <i>Reclaiming of rubber such as used tires to produce secondary raw material</i>	21	72,252	40,278	31,974	367	10,170	47,956
Pemulihan bahan t.t.t.l <i>Materials recovery n.e.c.</i>	49	406,505	289,868	116,638	1,359	45,567	249,624
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>	15	35,129	13,884	21,244	144	4,703	2,842

Jadual 3: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Negeri, 2022

Table 3: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by State, 2022

Negeri State	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output (RM '000)	Nilai input perantaraan Value of intermediate input (RM '000)	Nilai ditambah Value added (RM '000)	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages (RM '000)	Nilai harta tetap Value of fixed assets (RM '000)
Jumlah/ Total	1,008	18,859,094	8,956,703	9,902,391	59,535	2,358,153	11,170,983
Johor	189	3,921,327	1,560,512	2,360,814	12,467	502,582	1,330,904
Kedah	33	732,958	400,881	332,077	3,448	107,783	372,279
Kelantan	5	143,487	71,156	72,331	822	26,897	885,685
Melaka	36	465,764	291,116	174,647	1,162	38,306	499,178
Negeri Sembilan	41	864,058	499,603	364,455	2,933	85,072	467,994
Pahang	20	383,152	234,754	148,398	2,110	88,710	52,261
Perak	52	580,100	234,006	346,094	1,528	74,502	417,918
Perlis	6	58,517	27,945	30,572	287	8,244	6,775
Pulau Pinang	124	1,486,677	715,173	771,504	4,078	157,196	1,365,085
Sabah	19	921,028	542,342	378,686	2,868	97,174	209,785
Sarawak	50	776,248	419,752	356,496	4,422	185,440	775,983
Selangor	327	5,955,954	2,554,799	3,401,155	13,468	633,856	3,338,396
Terengganu	12	211,974	101,554	110,420	839	33,923	108,131
W.P. Kuala Lumpur	90	2,284,145	1,260,615	1,023,531	8,891	307,875	1,325,083
W.P. Labuan	4	73,705	42,493	31,212	212	10,592	15,525
W.P. Putrajaya	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Jadual 4: Statistik Utama Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Taraf Sah, 2022
Table 4: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by Legal Status, 2022

Taraf sah <i>Legal status</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah/ Total	1,008	18,859,094	8,956,703	9,902,391	59,535	2,358,153	11,170,983
Hak milik perseorangan <i>Individual proprietorship</i>	287	301,180	163,831	137,349	1,763	38,578	43,874
Perkongsian <i>Partnership</i>	27	16,346	8,332	8,014	157	2,736	3,060
Syarikat sendirian berhad <i>Private limited company</i>	685	16,839,148	7,877,050	8,962,098	49,603	1,971,059	9,671,390
Syarikat awam berhad <i>Public limited company</i>	3	502,331	287,878	214,453	2,320	104,388	511,793
Perbadanan awam <i>Public corporation</i>	6	1,200,090	619,613	580,477	5,692	241,393	940,865

Jadual 5: Statistik Utama Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Hak Milik, 2022
Table 5: Principal Statistics of Water Supply; Sewerage, Waste Management and Remediation Activities Services by Ownership, 2022

Hak milik Ownership	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output (RM '000)	Nilai input perantaraan Value of intermediate input (RM '000)	Nilai ditambah Value added (RM '000)	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages (RM '000)	Nilai harta tetap Value of fixed assets (RM '000)
Jumlah/ Total	1,008	18,859,094	8,956,703	9,902,391	59,535	2,358,153	11,170,983
Residen Malaysia Malaysian residents	1,002	18,617,147	8,799,891	9,817,255	59,087	2,341,400	11,024,821
Bukan residen Malaysia Non-Malaysian residents	6	241,947	156,811	85,136	448	16,753	146,162
Hak milik bersama Joint ownership							

Jadual 6: Bilangan Pekerja dan Gaji & Upah bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Kategori Pekerja, 2022
Table 6: Number of Persons Engaged and Salaries & Wages for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Category of Workers, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i> (RM '000)
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	
Jumlah/ Total	59,535	47,851	11,684	2,358,153
Jumlah pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tidak bergaji <i>Total working proprietors and unpaid family workers</i>	297	258	39	-
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietors and active business partners</i>	264	236	28	-
Pekerja keluarga tidak bergaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family workers (all members of family and friends not receiving regular wages)</i>	33	22	11	-
Jumlah pekerja bergaji (sepenuh masa) <i>Total paid employees (full-time)</i>	58,647	47,092	11,555	2,345,663
Pengurus <i>Managers</i>	3,244	2,425	819	404,972
Profesional <i>Professional</i>	4,033	2,402	1,631	252,432
Profesional (kecuali Penyelidik) <i>Professional (except Researcher)</i>	4,013	2,392	1,621	251,421
Penyelidik <i>Researcher</i>	20	10	10	1,011
Juruteknik dan profesional bersekutu <i>Technicians and associate professionals</i>	8,503	7,657	846	403,795
Pekerja sokongan perkeranian <i>Clerical support workers</i>	8,408	3,054	5,354	307,884
Pekerja perkhidmatan dan jualan <i>Service and sales workers</i>	2,887	2,323	564	114,074
Pekerja kemahiran dan pekerja pertukangan yang berkaitan <i>Craft and related trades workers</i>	2,015	1,883	132	84,305
Operator mesin, loji dan pemasang <i>Plant and machine operators and assemblers</i>	13,816	12,958	858	421,098
Pekerjaan asas <i>Elementary occupations</i>	15,741	14,390	1,351	357,104
Pekerja bergaji (sambilan) <i>Paid employees (part-time)</i>	591	501	90	12,490

Jadual 7: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022
Table 7: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022

Aktiviti <i>Activity</i>	Bilangan pertubuhan <i>Number of establishments</i>	Bilangan pekerja <i>Number of persons engaged</i>			
		Jumlah <i>Total</i>	Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji <i>Working proprietor & active business partners and unpaid family worker</i>	Pekerja bergaji (sepenuh masa) <i>Paid employees (full-time)</i>	Pekerja bergaji (sambilan) <i>Paid employees (part-time)</i>
Jumlah/ Total	1,008	59,535	297	58,647	591
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>	48	23,327	2	22,849	476
Penulenan dan pengagihan air untuk tujuan bekalan air <i>Purification and distribution of water for water supply purposes</i> Penyahmasinan air laut atau bawah tanah untuk menghasilkan air sebagai kepentingan produk utama <i>Desalting of sea or ground water to produce water as the principal product of interest</i>	48	23,327	2	22,849	476
Pembetulan <i>Sewerage</i>	77	5,582	10	5,566	6
Pembetulan dan aktiviti-aktiviti yang seumpamanya <i>Sewerage and similar activities</i>	77	5,582	10	5,566	6
Pengumpulan sisa <i>Waste collection</i>	695	21,944	250	21,634	60
Pengumpulan sisa pepejal yang tidak berbahaya di kawasan setempat <i>Collection of non-hazardous solid waste within a local area</i>	149	9,298	31	9,257	10

Jadual 7: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022 (samb.)

Table 7: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022 (cont'd)

Aktiviti Activity	Bilangan pertubuhan Number of establishments	Bilangan pekerja Number of persons engaged			
		Jumlah Total	Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji Working proprietor & active business partners and unpaid family worker	Pekerja bergaji (sepenuh masa) Paid employees (full-time)	Pekerja bergaji (sambilan) Paid employees (part-time)
Pengumpulan bahan kitar semula <i>Collection of recyclable materials</i>	420	5,305	177	5,096	32
Pengumpulan sampah dalam tong sampah di kawasan awam <i>Collection of refuse in litter-bins in public places</i>	51	6,124	23.00	6,101	-
Pengumpulan sisa pembinaan dan runtuh <i>Collection of construction and demolition waste</i>	33	300	9	288	3
Operasi stesen pemindahan pembuangan sisa tidak berbahaya <i>Operation of waste transfer stations for non-hazardous waste</i>	3	16	2	14	-
Pengumpulan sisa berbahaya <i>Collection of hazardous waste</i>	39	901	8	878	15
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>	60	5,082	2	5,076	4
Rawatan dan pelupusan sisa tidak berbahaya <i>Treatment and disposal of non-hazardous waste</i>	42	3,332	2	3,326	4
Rawatan dan pelupusan sisa berbahaya <i>Treatment and disposal of hazardous</i>	18	1,750	-	1750	-

Jadual 7: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022 (samb.)
Table 7: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022 (cont'd)

Aktiviti Activity	Bilangan pertubuhan Number of establishments	Bilangan pekerja Number of persons engaged			
		Jumlah Total	Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji Working proprietor & active business partners and unpaid family worker	Pekerja bergaji (sepenuh masa) Paid employees (full-time)	Pekerja bergaji (sambilan) Paid employees (part-time)
Pemulihan semula bahan Material recovery	}				
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa Remediation activities and other waste management services		128	3,600	33	3,522
Meremukkan secara mekanikal sisa logam Mechanical crushing of metal waste		32	1,133	10	1,105
Meleraikan peralatan automobil, komputer, televisyen dan peralatan lain untuk pemulihan bahan Dismantling of automobiles, computers, televisions and other equipment for material recover		11	598	1	597
Memulih guna getah seperti tayar terpakai untuk menghasilkan bahan mentah sekunder Reclaiming of rubber such as used tires to produce secondary raw material		21	367	5.00	354
Pemulihan bahan t.t.t.l Materials recovery n.e.c.		49	1,358	13	1,336
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa Remediation activities and other waste management services		15	144	4	130

Jadual 8: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti dan Jantina, 2022
Table 8: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity and Sex, 2022

Aktiviti Activity	Jumlah Total	Bilangan pekerja Number of persons engaged								Gaji & upah Salaries & wages	
		Jumlah Pekerja Total number of persons engaged		Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji Working proprietor & active business partners and unpaid family worker		Pekerja bergaji (sepenuh masa) Paid employees (full-time)		Pekerja bergaji (sambilan) Paid employees (part-time)		(RM '000)	(RM '000)
		Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female
Jumlah/ Total	59,535	47,851	11,684	258	39	47,092	11,555	501	90	1,861,425	496,729
Penakungan, perawatan dan bekalan air Water collection, treatment and supply	23,327	18,917	4,410	1	1	18,515	4,334	401	75	1,030,165	252,876
48 Penulenan dan pengagihan air untuk tujuan bekalan air Purification and distribution of water for water supply purposes Penyahmasinan air laut atau bawah tanah untuk menghasilkan air sebagai kepentingan produk utama Desalting of sea or ground water to produce water as the principal product of interest	23,327	18,917	4,410	1	1	18,515	4,334	401	75	1,030,165	252,876
Pembetulan Sewerage	5,582	4,322	1,260	10	-	4,306	1,260	6	-	147,506	46,260
Pembetulan dan aktiviti-aktiviti yang seumpamanya Sewerage and similar activities	5,582	4,322	1,260	10	-	4,306	1,260	6	-	147,506	46,260
Pengumpulan sisa Waste collection	21,944	18,320	3,624	216	34	18,052	3,582	52	8	474,799	113,523
Pengumpulan sisa pepejal yang tidak berbahaya di kawasan setempat Collection of non-hazardous solid waste within a local area	9,298	7,464	1,834	27	4	7,427	1,830	10	-	190,733	55,288

Jadual 8: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti dan Jantina, 2022 (samb.)
Table 8: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity and Sex, 2022 (cont'd)

Aktiviti Activity	Jumlah Total	Bilangan pekerja Number of persons engaged								Gaji & upah Salaries & wages	
		Jumlah Pekerja Total number of persons engaged		Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji Working proprietor & active business partners and unpaid family worker		Pekerja bergaji (sepenuh masa) Paid employees (full-time)		Pekerja bergaji (sambilan) Paid employees (part-time)		(RM '000)	(RM '000)
		Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female
Pengumpulan bahan kitar semula Collection of recyclable materials	5,305	4,441	864	151	26	4,261	835	29	3	127,261	32,146
Pengumpulan sampah dalam tong sampah di kawasan awam Collection of refuse in litter-bins in public places	6,124	5,564	560	21	2	5,543	558	-	-	131,912	16,806
Pengumpulan sisa pembinaan dan runtunan Collection of construction and demolition waste	300	264	36	8	1	253	35	3	-	7,402	982
Operasi stesen pemindahan pembuangan sisa tidak berbahaya Operation of waste transfer stations for non- hazardous waste	16	14	2	2	-	12	2	-	-	405	59
Pengumpulan sisa berbahaya Collection of hazardous waste	901	573	328	7	1	556	322	10	5	17,085	8,241
Rawatan dan pelupusan sisa Waste treatment and disposal	5,082	3,195	1,887	2	-	3,189	1,887	4	-	120,118	65,259
Rawatan dan pelupusan sisa tidak berbahaya Treatment and disposal of non-hazardous	3,332	1,822	1,510	2	-	1816	1510	4	-	66,830	50,779
Rawatan dan pelupusan sisa berbahaya Treatment and disposal of hazardous	1,750	1,373	377	-	-	1373	377	-	-	53,287	14,480
Pemulihan semula bahan Material recovery	3,600	3,097	503	29	4	3,030	492	38	7	88,838	18,810
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa Remediation activities and other waste											

Jadual 8: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti dan Jantina, 2022 (samb.)
Table 8: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity and Sex, 2022 (cont'd)

Aktiviti Activity	Jumlah Total	Bilangan pekerja Number of persons engaged								Gaji & upah Salaries & wages	
		Jumlah Pekerja Total number of persons engaged		Pemilik yang bekerja & rakan niaga yang aktif dan pekerja keluarga tanpa gaji Working proprietor & active business partners and unpaid family worker		Pekerja bergaji (sepenuh masa) Paid employees (full-time)		Pekerja bergaji (sambilan) Paid employees (part-time)		(RM '000)	(RM '000)
		Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female	Lelaki Male	Perempuan Female
Meremukkan secara mekanikal sisa logam <i>Mechanical crushing of metal waste</i>	1,133	944	189	9	1	917	188	18	-	25,289	5,722
Meleraikan peralatan automobil, komputer, televisyen dan peralatan lain untuk pemulihan bahan <i>Dismantling of automobiles, computers, televisions and other equipment for material recover</i>	598	551	47	1	-	550	47	-	-	14,659	1,537
Memulih guna getah seperti tayar terpakai untuk menghasilkan bahan mentah sekunder <i>Reclaiming of rubber such as used tires to produce secondary raw material</i>	367	308	59	4	1	297	57	7	1	8373	1,797
Pemulihan bahan t.t.t.l <i>Materials recovery n.e.c.</i>	1,358	1,167	191	11	2	1153	183	3	6	36401	9,166
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>	144	127	17	4	-	113	17	10	-	4114	589

Jadual 9: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Kategori Pekerja dan Kewarganegaraan, 2022
Table 9: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Category of Workers and Citizenship, 2022

Kategori pekerja <i>Category of workers</i>	Bilangan pekerja <i>Number of persons engaged</i>		
	Jumlah <i>Total</i>	Warganegara <i>Citizen</i>	Bukan Warganegara <i>Non-citizen</i>
Jumlah/ Total	59,535	55,303	4,232
Jumlah pemilik yang bekerja dan pekerja keluarga tidak bergaji <i>Total working proprietors and unpaid family workers</i>	297	296	1
Pemilik yang bekerja dan rakan niaga yang aktif <i>Working proprietors and active business partners</i>	264	263	1
Pekerja keluarga tidak bergaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap) <i>Unpaid family workers (all members of family and friends not receiving regular wages)</i>	33	33	-
Jumlah pekerja bergaji (sepanjang masa) <i>Total paid employees (full-time)</i>	58,647	54,426	4,221
Pengurus <i>Managers</i>	3,244	3,241	3
Profesional <i>Professional</i>	4,033	4,030	3
Profesional (kecuali Penyelidik) <i>Professional (except Researcher)</i>	4,013	4,010	3
Penyelidik <i>Researcher</i>	20	20	-
Juruteknik dan profesional bersekutu <i>Technicians and associate professionals</i>	8,503	8,486	17
Pekerja sokongan perkeranian <i>Clerical support workers</i>	8,408	8,396	12
Pekerja perkhidmatan dan jualan <i>Service and sales workers</i>	2,887	2,832	55
Pekerja kemahiran dan pekerja pertukangan yang berkaitan <i>Craft and related trades workers</i>	2,015	1,971	44
Operator mesin, loji dan pemasang <i>Plant and machine operators and assemblers</i>	13,816	12,130	1,686
Pekerjaan asas <i>Elementary occupations</i>	15,741	13,340	2,401
Pekerja bergaji (sambilan) <i>Paid employees (part-time)</i>	591	581	10

Jadual 10: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Sijil Tertinggi Diperoleh dan Jantina, 2022

Table 10: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Highest Certificate Obtained and Sex, 2022

Kelulusan <i>Qualification</i>	Jumlah pekerja <i>Total employment</i>	Bilangan pekerja <i>Number of persons engaged</i>	
		Lelaki <i>Male</i>	Perempuan <i>Female</i>
Jumlah/ Total	59,535	47,851	11,684
Pascasiswazah <i>Postgraduate</i>	454	229	225
Ijazah sarjana muda/ Diploma lanjutan atau yang setaraf <i>Bachelor/ Advanced diploma or equivalent</i>	7,432	4,291	3,141
Diploma <i>Diploma</i>	9,566	6,544	3,022
STPM atau yang setaraf <i>STPM or equivalent</i>	1,281	675	606
Sijil <i>Certificate</i>	6,668	6,233	435
SPM/ SPM (V) atau yang setaraf <i>SPM/ SPM (V) or equivalent</i>	26,871	23,185	3,686
Di bawah taraf kelulusan SPM/ SPM (V) <i>Below SPM/ SPM (V) qualification</i>	7,263	6,694	569

Jadual 11: Bilangan Pekerja bagi Perkhidmatan Bekalan Air; Pembentukan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti dan Sijil Tertinggi Diperoleh, 2022

Table 11: Number of Persons Engaged for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity and Highest Certificate Obtained, 2022

Aktiviti <i>Activity</i>	Pascasiswazah <i>Postgraduate</i>	Ijazah sarjana muda/ Diploma lanjutan atau yang setaraf <i>Bachelor/Advanced diploma or equivalent</i>	Diploma <i>Diploma</i>	STPM atau yang setaraf <i>STPM or equivalent</i>	Sijil <i>Certificate</i>	SPM/SPM (V) atau yang setaraf <i>SPM/SPM (V) or equivalent</i>	Di bawah taraf kelulusan SPM/SPM (V) <i>Below SPM/SPM (V) qualification</i>
Jumlah <i>Total</i>	454	7,432	9,566	1,281	6,668	26,871	7,263
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>	210	3,076	4,802	687	3,981	8,837	1,734
Pembentukan <i>Sewerage</i>	94	1,248	1,238	53	1,119	1,340	490
Pengumpulan sisa <i>Waste collection</i>	45	1,393	2,273	335	1,177	12,640	4,081
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>	103	1,340	835	117	255	1,999	433
Pemulihan semula bahan <i>Material recovery</i>	2	375	418	89	136	2,055	525
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>							

Jadual 12: Bilangan Pekerja Bergaji Sepenuh Masa dan Gaji & Upah bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Kategori Kemahiran dan Jantina, 2022
Table 12: Number of Paid Full-Time Employees and Salaries & Wages for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Category of Skills and Sex, 2022

Kategori kemahiran <i>Category of skills</i>	Bilangan pekerja <i>Number of persons engaged</i>			Gaji & upah <i>Salaries & wages</i>
	Jumlah <i>Total</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>	(RM '000)
Jumlah/ Total	58,647	47,092	11,555	2,345,663
Mahir <i>Skilled</i>	15,780	12,484	3,296	1,061,199
Separuh Mahir <i>Semi-skilled</i>	27,126	20,218	6,908	927,360
Berkemahiran Rendah <i>Low-skilled</i>	15,741	14,390	1,351	357,104

Jadual 13: Bilangan Pekerja Bergaji Sepenuh Masa bagi Perkhidmatan Bekalan Air; Pembetungan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti dan Kategori Kemahiran, 2022
Table 13: Number of Paid Full-Time Employees for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity and Category of Skills, 2022

Aktiviti/Activity	Mahir/Skilled *		Separuh Mahir/Semi-Skilled **		Berkemahiran Rendah/Low-Skilled ***	
	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages
		(RM '000)		(RM '000)		(RM '000)
Jumlah/ Total	15,780	1,061,199	27,126	927,360	15,741	357,104
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>	8,149	634,318	12,110	557,605	2,590	80,648
Pembetungan <i>Sewerage</i>	3,097	129,301	2,261	60,032	208	4,313
Pengumpulan sisa <i>Waste collection</i>	3,047	186,396	7,136	162,574	11,451	238,596
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>	819	64,229	3,442	101,634	815	19,407
Pemulihan semula bahan <i>Material recovery</i>	640	45,213	2,114	43,736	638	13,076
Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>	28	1,742	63	1,779	39	1,064

* Termasuk pengurusan & profesional dan juruteknik & profesional bersekutu / Includes managers & professionals and technicians & associate professionals

** Termasuk pekerja sokongan perkeranian, pekerja perkhidmatan & jualan, pekerja kemahiran & pekerja pertukangan yang berkaitan dan operator mesin & loji pemasangan
Includes clerical support workers, service & sales workers, craft & related trades workers and plant & machine operators & assemblers

*** Termasuk pekerja asas / Includes elementary occupations

Jadual 14: Nilai Harta Tetap bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Jenis Harta, 2022

Table 14: Value of Fixed Assets for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Type of Assets, 2022

Jenis harta <i>Type of assets</i>	Nilai buku bersih seperti pada 01.01.2022 <i>Net book value as at 01.01.2022</i>	Perbelanjaan modal <i>Capital expenditure</i>	Pelupusan <i>Disposal</i>	Susut nilai semasa <i>Current depreciation</i>	Nilai buku bersih seperti pada 31.12.2022 <i>Net book value as at 31.12.2022</i>	Sewa yang dibayar dalam tahun 2022 <i>Rent paid during 2022</i>
	(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)	(RM '000)
Jumlah/ Total	11,163,505	924,740	48,863	872,333	11,170,983	124,327
Tanah <i>Land</i>	810,696	46,554	54	1,153	855,067	20,709
Bangunan dan binaan lain <i>Buildings and other construction</i>	3,037,552	194,616	313	136,619	3,101,095	58,501
Alat pengangkutan <i>Transport equipment</i>	540,122	36,382	7,967	107,650	457,033	9,829
Teknologi maklumat dan komunikasi <i>Information and communications technology</i>	249,287	21,405	11	54,428	215,233	6
Jentera dan kelengkapan <i>Machinery and equipment</i>	2,763,652	195,507	1,766	345,180	2,618,861	35,220
Perabot dan pemasangan <i>Furniture and fittings</i>	722,938	86,972	224	138,476	670,990	51
Harta lain <i>Other assets</i>	3,039,257	343,305	38,530	88,826	3,252,704	11

Jadual 15: Statistik Utama Pertubuhan Milikan Wanita bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Aktiviti, 2022

Table 15: Principal Statistics of Women-owned Establishments for Water Supply; Sewerage, Waste Management and Remediation Activities Services by Activity, 2022

Aktiviti <i>Activity</i>	Bilangan pertubuhan <i>Number of establishments</i>	Nilai output kasar <i>Value of gross output</i>	Nilai input perantaraan <i>Value of intermediate input</i>	Nilai ditambah <i>Value added</i>	Bilangan pekerja <i>Number of persons engaged</i>	Gaji & upah <i>Salaries & wages</i>	Nilai harta tetap <i>Value of fixed assets</i>
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah/ Total	60	224,172	103,717	120,455	1,501	48,241	60,623
Pembetulan Sewerage	5	5,426	2,330	3,095	52	1,322	2,211
Pengumpulan sisa Waste collection	47	196,693	89,223	107,470	1,307	43,705	48,808
Pemulihan semula bahan Material recovery	8	22,054	12,164	9,890	142	3,214	9,604

Jadual 16: Statistik Utama Pertubuhan Milikan Wanita bagi Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan mengikut Negeri, 2022

Table 16: Principal Statistics of Women-owned Establishments for Water Supply; Sewerage, Waste Management and Remediation Activities Services by State, 2022

Negeri State	Bilangan pertubuhan Number of establishments	Nilai output kasar Value of gross output	Nilai input perantaraan Value of intermediate input	Nilai ditambah Value added	Bilangan pekerja Number of persons engaged	Gaji & upah Salaries & wages	Nilai harta tetap Value of fixed assets
		(RM '000)	(RM '000)	(RM '000)		(RM '000)	(RM '000)
Jumlah/ Total	60	224,172	103,717	120,455	1,501	48,241	60,623
Johor¹	9	63,176	32,671	30,505	282	9,488	28,381
Kedah²	8	27,643	16,798	10,845	153	4,327	10,188
Melaka	5	3,280	1,735	1,545	28	671	973
Negeri Sembilan	3	3,851	1,635	2,216	23	504	84
Perak³	5	7,773	5,661	2,111	24	518	892
Sabah⁴	6	23,561	11,677	11,885	265	6,972	13,081
Selangor	20	84,583	27,426	57,157	665	24,025	5,665
W.P. Kuala Lumpur⁵	4	10,305	6,113	4,192	61	1,736	1,359
Kelantan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pahang	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
W.P. Putrajaya	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Nota/Note : ¹Termasuk Terengganu / Include Terengganu

²Termasuk Perlis / Include Perlis

³Termasuk Pulau Pinang / Include Pulau Pinang

⁴Termasuk Sarawak / Include Sarawak

⁵Termasuk W.P. Labuan / Include W.P. Labuan



BAHAGIAN *PART* **4**

NOTA TEKNIKAL *TECHNICAL NOTES*

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1. SKOP DAN LIPUTAN

Penerbitan ini menggunakan data daripada Banci Ekonomi 2023 (tahun rujukan 2022). Banci Ekonomi 2023 meliputi pertubuhan berdaftar termasuk agensi bekalan air di bawah kerajaan negeri yang terlibat dalam sektor Perkhidmatan Bekalan Air; Pembetulan, Pengurusan Sisa dan Aktiviti Pemulihan. Sektor ini meliputi enam (6) kod industri di peringkat 3-digit mengikut Piawaian Klasifikasi Industri Malaysia (MSIC), 2008 Versi 1.0 seksyen E yang selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, United Nations*. Senarai lengkap industri yang diliputi adalah seperti di lampiran.

2. SUMBER RANGKA STATISTIK

Sumber utama rangka statistik pertubuhan adalah daripada *Malaysia Statistical Business Register* (MSBR) manakala bagi subsektor Penginapan termasuk perniagaan inap desa yang tidak berdaftar. MSBR adalah senarai pertubuhan/ perusahaan yang beroperasi di Malaysia yang merangkumi Daftar Syarikat (ROC), Daftar Perniagaan (ROB) dan Perkongsian Liabiliti Terhad (LLP) yang berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) serta pertubuhan yang berdaftar dengan Pihak Berkuasa Tempatan (PBT) dan badan profesional. Senarai di MSBR dikemaskini secara berkala berdasarkan survei dan bancian yang dijalankan oleh Jabatan Perangkaan Malaysia (DOSM) dan sumber data pentadbiran daripada pelbagai agensi. Sumber utama data pentadbiran adalah daripada SSM.

Selain itu, DOSM juga bekerjasama dengan agensi lain seperti Kumpulan Wang Simpanan Pekerja (KWSP), Jabatan Kastam Diraja Malaysia, Lembaga Hasil Dalam Negeri (LHDN), Pertubuhan Keselamatan Sosial (PERKESO), PBT dan badan profesional. Rangka dikemaskini untuk mengambil kira pertubuhan baru dan sebarang perubahan yang berlaku kepada pertubuhan tersebut seperti tutup, tidak beroperasi, perubahan jenis aktiviti dan lokasi/ alamat pos untuk memastikan maklumat yang terdapat dalam rangka adalah yang paling terkini.

3. JENIS AKTIVITI PERNIAGAAN

Jenis aktiviti perniagaan merujuk kepada aktiviti utama dan sekunder. Aktiviti utama merujuk kepada aktiviti yang mana pertubuhan menumpukan sebahagian besar sumbernya atau memberi sumbangan besar dari segi pendapatan. Aktiviti sekunder didefinisikan sebagai aktiviti sampingan kepada aktiviti utama. Klasifikasi industri bagi pertubuhan adalah berasaskan kepada aktiviti utama dan Piawaian Klasifikasi Industri Malaysia (MSIC), 2008 Versi 1.0. MSIC 2008 yang diselaraskan dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, United Nations* dan pengubahsuaian mengikut keperluan tempatan.

4. KONSEP DAN DEFINISI

Definisi yang diguna pakai dalam penerbitan ini berasaskan kepada Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0. Konsep berkenaan mengikut amalan yang sudah diterima pakai bagi memudahkan perbandingan data dibuat diperingkat antarabangsa.

Bekalan air; pembetulan, pengurusan sisa & aktiviti pemulihan meliputi aktiviti yang berkaitan dengan pengurusan sisa termasuk pungutan, perawatan dan pelupusan seperti sisa terjadual, sisa pepejal dan air sisa daripada perindustrian dan isi rumah, termasuk juga pemulihan bahan dan tapak yang tercemar. Hasil sisa daripada proses perawatan boleh dilupus atau menjadi input kepada proses pengeluaran yang lain. Aktiviti yang berkaitan dengan perawatan dan bekalan air juga dimasukkan dalam sektor ini.

5. TAHUN BANGCI

Merujuk kepada tahun pelaksanaan bancian dijalankan.

6. TAHUN RUJUKAN

Tahun rujukan bagi penerbitan ini adalah tahun takwim 2022. Pertubuhan yang mempunyai tahun kewangan yang berbeza daripada tahun takwim diminta menyediakan laporan mengikut tahun perakaunan atau kewangan yang meliputi sekurang-kurangnya enam (6) bulan dalam tahun rujukan.

7. KAEDAH PENGUMPULAN

Bancian ini secara umumnya dijalankan dengan menggunakan tiga (3) kaedah pengumpulan data seperti berikut:

7.1 Kutipan data melalui portal e-BE

Kaedah ini menyasarkan responden yang telah menggunakan kaedah ini bagi survei rutin terdahulu.

7.2 Kutipan data melalui e-mel, pos, faks dan telefon

Kaedah ini menyasarkan responden yang pernah terlibat dengan survei rutin terdahulu. Responden diberi tempoh satu bulan untuk melengkapkan dan mengembalikan borang soal selidik tersebut kepada DOSM.

7.3 Kutipan data secara bersemuka

Kerja luar operasi di lapangan dijalankan untuk mendapatkan maklum balas daripada pertubuhan yang belum memberi jawapan dari kedua-dua kaedah di atas dan kaedah ini menyasarkan pertubuhan yang tidak pernah terlibat dengan survei rutin DOSM.

8. UNIT PELAPOR

Unit pelapor bagi Banci Ekonomi 2023 adalah pertubuhan. Sesebuah pertubuhan secara ideal ditakrifkan sebagai “satu unit ekonomi yang bergiat di bawah satu hak milik atau penguasaan tunggal, iaitu di bawah satu entiti yang sah. Ia menjalankan satu jenis subsektor ekonomi utama di satu tempat/ lokasi fizikal”. Setiap pertubuhan diberikan klasifikasi industri berdasarkan aktiviti utamanya dan bukannya mengikut aktiviti syarikat induk.

Setiap cawangan daripada organisasi yang mempunyai beberapa cawangan di lokasi yang berbeza dari segi konsep dianggap sebagai pertubuhan yang berlainan. Pertubuhan berkenaan diminta memberikan penyata yang berasingan bagi setiap kegiatannya dari segi nilai. Walau bagaimanapun, dari segi praktis akaun biasanya disediakan secara berpusat kerana kesukaran untuk memperoleh data yang berasingan bagi setiap unit atau cawangan, entiti atau “*enterprise*” ini akan dianggap sebagai satu unit pelapor dan dibenarkan mengemukakan soal selidik yang menggabungkan semua unit atau cawangannya.

9. TARAF SAH

Taraf sah sesebuah pertubuhan telah ditakrifkan seperti berikut:

9.1 Hak milik perseorangan

Ia merujuk kepada perniagaan yang dimiliki dan dijalankan oleh orang perseorangan semata-mata untuk mendapatkan keuntungan sendiri. Pemilik mempunyai hak mutlak atas segala urusan pertubuhannya.

9.2 Perkongsian

Ia merujuk kepada sekumpulan individu yang telah bersetuju mengikat kontrak dan menjalankan perniagaan dengan matlamat untuk memperoleh keuntungan. Perniagaan tersebut diuruskan oleh kesemua mereka atau salah seorang daripada mereka yang bertindak mewakili semua pihak. Perkongsian perniagaan ini hendaklah mengandungi sekurang-kurangnya dua orang ahli dan tidak melebihi had maksimum dua puluh orang.

9.3 Perkongsian liabiliti terhad

Merujuk kepada perniagaan entiti yang dikawal selia di bawah Akta Perkongsian Liabiliti Terhad 2012. Ia memberi perlindungan liabiliti terhad kepada rakan-rakan kongsinya sama seperti liabiliti terhad yang dinikmati oleh pemegang saham sesebuah syarikat. Ia juga memberi fleksibiliti peraturan perniagaan dalaman melalui pengaturan perkongsian yang serupa dengan sesebuah perkongsian konvensional.

9.4 Syarikat sendirian berhad

Merupakan syarikat persendirian yang ditubuhkan bagi tujuan menjalankan perniagaan dengan matlamat untuk mencari keuntungan. Saham dipegang secara tertutup oleh pemegang-pemegang saham yang mempunyai kawalan terhadap operasi syarikat;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh 2 - 50 orang pemegang saham;
- iii. Pemilik syarikat mempunyai liabiliti terhad;
- iv. Pemegang saham yang memiliki 51 peratus atau lebih daripada jumlah saham syarikat berhak untuk mengawal syarikat tersebut. Saham syarikat boleh dijual beli tetapi tidak dilakukan di pasaran terbuka;
- v. Penjualan saham mesti dengan persetujuan pemegang saham yang lain;
- vi. Tidak disenaraikan di Bursa; dan
- vii. Jangka hayat perniagaan adalah panjang dan boleh dikenali perkataan Sendirian Berhad (Sdn. Bhd.) pada akhir nama syarikat.

9.5 Syarikat awam berhad

Syarikat awam berhad merupakan perniagaan yang ditubuhkan dengan tanggungan berhad, oleh sekurang kurangnya dua orang untuk menjalankan perniagaan dengan tujuan untuk mencari keuntungan. Saham syarikat awam berhad ini dipegang secara terbuka dan bagi sesebuah syarikat yang disenaraikan di Bursa Malaysia, sahamnya boleh bertukar milik secara bebas;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh pemegang pemegang saham dan tiada had bagi pemilik saham berkenaan;
- iii. Pengurusan dan kawalan syarikat adalah di bawah tanggungjawab Lembaga Pengarah yang dilantik oleh pemegang saham; dan
- iv. Disenaraikan di Bursa Malaysia.

9.6 Syarikat koperasi

Koperasi adalah organisasi yang ditubuhkan untuk faedah bersama ahli dan didaftarkan di bawah Akta Koperasi 1993. Kumpulan wang yang ada adalah milik bersama untuk memenuhi keperluan ahli-ahlinya.

9.7 Perbadanan awam

Ia merupakan sebuah perbadanan yang ditubuhkan di bawah Akta Khas Parlimen atau Dewan Perundangan Negeri.

9.8 Pertubuhan persendirian tidak mencari keuntungan

Ia merujuk kepada syarikat tanpa saham yang ditubuhkan dengan tanggungan berhad. Kebanyakan syarikat ini terdiri daripada pertubuhan kebajikan, keagamaan, pendidikan, kesihatan, kebudayaan, rekreasi dan pertubuhan yang memberikan perkhidmatan sosial dan kemasyarakatan kepada isi rumah. Perkhidmatan diberikan secara percuma atau pada harga yang tidak melebihi kos perkhidmatan (subsidi). Sebarang keuntungan yang diperoleh dilabur semula ke dalam pertubuhan berkenaan.

10. STRUKTUR HAK MILIK

Hak milik sesebuah pertubuhan dikelaskan mengikut taraf residen pemilik/pemilik-pemilik modal berbayar yang terbesar (melebihi 50%) dan bukannya mengikut taraf kewarganegaraan mereka. Dalam kes di mana setiap pihak (Residen Malaysia dan Bukan Residen Malaysia) memegang bilangan saham yang sama banyak dalam perniagaan berkenaan, maka pertubuhan tersebut telah dikelaskan di bawah "Hak Milik Bersama".

Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di Malaysia untuk jangka masa sekurang-kurangnya satu tahun. Cawangan dan anak syarikat asing yang didaftarkan/ diperbadankan di Malaysia adalah dianggap sebagai Residen Malaysia.

Bukan Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di negara selain Malaysia. Cawangan dan anak syarikat milik Residen Malaysia di luar negeri juga dianggap sebagai Bukan Residen Malaysia.

11. NILAI OUTPUT KASAR

Nilai output kasar subsektor bekalan air; pembetungan, pengurusan sisa dan aktiviti pemulihan meliputi:

- + Jumlah pendapatan daripada aktiviti utama
- + Bayaran diterima bagi kerja memproses yang dibuat untuk pertubuhan lain yang menggunakan bahan mereka sendiri
- + Pendapatan daripada perkhidmatan pembaikan dan penyelenggaraan
- + Nilai jualan barangan yang dibeli untuk dijual semula
- + Nilai daripada kerja perindustrian lain
- + Pendapatan daripada perkhidmatan profesional
- + Komisen dan brokeraj yang diterima
- + Pendapatan daripada sewa lain-lain
- + Royalti, hakcipta, perlesenan dan yuran francais
- + Lain-lain pendapatan operasi
- + Perbelanjaan modal yang dibuat dan dibina sendiri
- Pembelian air terawat
- Kos barang/bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya
- + Perbelanjaan penyelidikan dan pembangunan (Dalam)

12. NILAI INPUT PERANTARAAN

Nilai input perantaraan subsektor bekalan air; pembetulan, pengurusan sisa dan aktiviti pemulihan ditakrifkan dengan memasukkan unsur berikut:

- + Pembelian air mentah
- + Bayaran kepada sub kontraktor
- + Caj pelupusan
- + Kos bahan mentah/komponen/bahagian yang digunakan
- + Bahan yang digunakan bagi pembaikan dan penyelenggaraan
- + Keperluan kilang
- + Alat tulis dan bekalan pejabat
- + Air yang dibeli
- + Tenaga elektrik yang dibeli
- + Bahan pembakar, pelincir dan gas yang digunakan
- + Bayaran bagi kerja memproses yang dibuat oleh pihak lain menggunakan bahan yang dibekalkan oleh pertubuhan ini
- + Bayaran pembaikan dan penyelenggaraan semasa yang dibuat oleh pihak lain bagi harta tetap pertubuhan ini
- + Perbelanjaan penyelidikan dan pembangunan
- + Pengangkutan barang
- + Perbelanjaan perjalanan
- + Bayaran perakaunan, audit dan kesetiausahaan
- + Bayaran guaman
- + Bayaran pengurusan
- + Bayaran keraian
- + Bayaran pos dan perkhidmatan kurier
- + Bayaran bank
- + Premium insurans dibayar ke atas bangunan, jentera, alat pengangkutan dan barang
- + Komisen dan bayaran agensi
- + Pengiklanan dan promosi
- + Bayaran professional
- + Bayaran pemprosesan data dan lain-lain perkhidmatan yang berkaitan dengan teknologi maklumat
- + Bayaran telekomunikasi
- + Lain-lain bayaran perkhidmatan bukan perindustrian
- + Sewaan operasi (tidak termasuk bayaran sewa tanah)
- + Bayaran royalti kepada: Organisasi bukan kerajaan/tajaan korporat
- + Lain-lain perbelanjaan operasi
- + Bayaran kepada pengarah tidak bekerja kerana kehadiran mereka dalam mesyuarat Lembaga Pengarah
- + Nilai pakaian percuma yang disediakan
- + Kos latihan kepada pekerja
- + Bayaran kepada pertubuhan lain yang membekalkan pekerja
- + Bayaran bagi perkhidmatan keselamatan

13. NILAI DITAMBAH

Nilai ditambah adalah perbezaan di antara output dan input perantaraan. Ia merupakan nilai ditambah barangan dan perkhidmatan dalam aktiviti ekonomi. Oleh itu, ia hampir menyamai dengan keuntungan perniagaan, gaji dan upah, susut nilai dan cukai tidak langsung; campur faedah yang dibayar dan tolak faedah yang diterima.

14. PEKERJA

Bilangan pekerja merujuk kepada bilangan orang yang bekerja pada bulan Disember atau pada tempoh pembayaran gaji terakhir bagi tahun rujukan. Bilangan orang yang bekerja dikategorikan seperti berikut:

14.1 Pemilik yang bekerja dan rakan niaga yang aktif

Kategori ini merujuk kepada semua pemilik perseorangan dan rakan niaga, sambilan atau sepenuh masa, yang bekerja dengan aktif dalam sesebuah pertubuhan itu. Justeru, ia tidak termasuk rakan niaga yang tidak aktif.

14.2 Pekerja keluarga tidak bergaji

Kategori ini meliputi semua ahli isi rumah kepada pemilik pertubuhan yang melaksanakan kerja tertentu (sepenuh masa atau sambilan) dan bekerja sekurang-kurangnya satu pertiga daripada waktu bekerja biasa yang diamalkan oleh pertubuhan berkenaan tanpa mendapat bayaran secara tetap, sama ada dalam bentuk wang tunai atau harta benda bagi kerja yang dilakukan. Biasanya pekerja berkenaan mendapat makanan, tempat tinggal dan bantuan lain sebagai sebahagian daripada ahli isi rumah pemilik tersebut dan terus mendapatnya sama ada ia bekerja atau tidak dalam pertubuhan itu.

14.3 Pekerja bergaji (sepenuh masa)

Ia merujuk kepada semua pekerja bergaji yang bekerja sekurang-kurangnya 6 jam sehari dan sekurang-kurangnya 20 hari sebulan.

i) Pengurus, profesional dan penyelidik termasuk:

a. Pengurus

Merujuk kepada mereka yang merangka, menganalisis, membentuk, mengarah dan memberi nasihat tentang dasar kerajaan, serta membuat, meminda dan memansuhkan undang-undang, peraturan-peraturan dan peraturan awam, dan mewakili serta bertindak bagi pihak kerajaan, serta mengawasi penafsiran dan pelaksanaan dasar dan undang-undang kerajaan, atau menjalankan tugas-tugas serupa bagi organisasi-organisasi kepentingan khas, atau merancang, mengurus, memimpin, mengawal dan mengkoordinasikan dasar-dasar dan aktiviti-aktiviti perusahaan, organisasi, jabatan atau bahagian dalaman; dan

b. Profesional

Merujuk kepada mereka yang bertanggung jawab untuk meningkatkan stok pengetahuan sedia ada, mengaplikasikan konsep dan teori sains atau seni, mengajar tentang perkara-perkara tersebut secara sistematik, atau terlibat dalam sebarang kombinasi daripada tiga aktiviti ini.

ii) Juruteknik dan profesional bersekutu

Merujuk kepada mereka yang menjalankan tugas teknikal dan berkaitan dengan penyelidikan serta aplikasi konsep sains atau seni dan kaedah operasi, serta peraturan kerajaan atau perniagaan.

iii) Perkeranian, pekerja perkhidmatan & jualan, kemahiran khas, operator mesin & loji dan pekerjaan berkaitan:**a. Pekerja sokongan perkeranian**

Merujuk kepada mereka yang merekod, mengurus, menyimpan dan mendapatkan maklumat yang berkaitan, dan menjalankan tugas-tugas perkeranian berhubung dengan operasi pentadbiran, pengendalian wang, urusan perjalanan, permintaan maklumat dan janji temu;

b. Pekerja perkhidmatan dan jualan

Merujuk kepada mereka yang menyediakan perkhidmatan peribadi berkaitan dengan perjalanan, penyelenggaraan rumah, katering, penjagaan peribadi, atau perlindungan daripada kebakaran dan perbuatan yang menyalahi undang-undang, atau mendemonstrasikan dan menjual barang-barang dalam kedai borong atau runcit dan penubuhan serupa serta di gerai dan pasar;

c. Pekerja kemahiran dan pekerja pertukangan yang berkaitan

Merujuk kepada mereka yang mengaplikasikan pengetahuan dan kemahiran khusus dalam bidang perlombongan dan pembinaan, penempaan logam, dan mendirikan struktur logam; membuat, melaraskan, menyelenggara dan membaiki pulih jentera, kelengkapan atau peralatan; menjalankan kerja pencetakan; dan mengeluarkan atau memproses barang makanan, tekstil atau kayu, logam dan barangan lain termasuk barang kraftangan; dan

d. Operator mesin & loji dan pemasang

Merujuk kepada mereka yang mengendalikan dan mengawasi jentera dan kelengkapan perindustrian dan pertanian; memandu dan mengendalikan kereta api, kenderaan bermotor, jentera dan kelengkapan bergerak; atau memasang bahagian komponen produk mengikut spesifikasi dan prosedur yang ketat.

iv) Pekerjaan asas

Merujuk kepada mereka yang menjalankan tugas yang mudah, rutin dan tidak sistematik yang biasanya memerlukan penggunaan perkakas tangan atau dengan sokongan mesin yang mudah, dan memerlukan tenaga fizikal yang banyak.

14.4 Pekerja bergaji (sambilan)

Ia merujuk kepada semua pekerja bergaji yang bekerja sekurang-kurangnya 6 jam sehari dan/ atau kurang daripada 20 hari sebulan.

15. KATEGORI KEMAHIRAN

Kategori kemahiran telah dikelaskan berdasarkan Piawaian Pengkelasan Pekerjaan Malaysia (MASCO) 2020 adalah seperti berikut:

i. Pekerja mahir

Pengurus dan profesional, penyelidik, juruteknik dan profesional bersekutu;

ii. Pekerja separuh mahir

Pekerja sokongan perkeranian, perkhidmatan & jualan, kemahiran & pertukangan yang berkaitan serta operator mesin, loji dan pemasangan; dan

iii. Pekerja berkemahiran rendah

Pekerja asas.

16. GAJI & UPAH

Semua pembayaran (gaji, upah, bonus, komisyen, bayaran lebih masa dan elaun tunai termasuk belanja sara hidup, perumahan, kereta, makanan dan sebagainya) yang dibuat sepanjang tahun rujukan meliputi semua pekerja bergaji dalam setiap kategori pekerja yang diambil secara langsung termasuk jumlah bayaran yang dibuat adalah sebelum ditolak cukai pendapatan dan caruman pekerja kepada Kumpulan Wang Simpanan Pekerja (KWSP)/ Pertubuhan Keselamatan Sosial (PERKESO) / Kumpulan wang simpanan lain/ Kumpulan Wang Persaraan (KWP). Caruman majikan kepada kumpulan wang yang di atas hendaklah dikecualikan.

17. NILAI HARTA TETAP

Harta tetap meliputi semua barangan, baru atau terpakai, aset ketara atau aset tidak ketara yang digunakan secara berulang atau berterusan yang mempunyai hayat produktif lebih daripada setahun. Ini termasuk tanah, bangunan & struktur, alat pengangkutan, komputer, jentera & kelengkapan, perabot & pemasangan dan harta lain. Harta lain meliputi aset biologi iaitu pokok/ tanaman (kecuali pokok balak yang bertujuan untuk pembalakan), ternakan dan perikanan akuakultur yang mengeluarkan hasil berulang kali dan mempunyai jangka hayat lebih daripada satu tahun.

Nilai harta tetap awal dan akhir bagi tahun rujukan 2022 adalah berasaskan nilai buku bersih. Pembelian, pindaan dan pembaikan besar atau perbelanjaan modal pada tahun berkenaan dikira pada nilai kos sebenar yang dibayar. Nilai harta tetap yang dijual dalam tahun semasa juga dikira pada nilai sebenar.

18. PERTUBUHAN MILIKAN WANITA

Pertubuhan milikan wanita merujuk kepada pertubuhan sekurang-kurangnya 51 peratus pemilikan ekuiti dipegang oleh wanita ATAU pemegang saham terbesar adalah wanita dan pertubuhan diuruskan oleh wanita ATAU Ketua Pegawai Eksekutif atau Pengarah Urusan adalah wanita yang memiliki sekurang-kurangnya 10 peratus ekuiti.

19. PEMBUNDARAN

Hasil tambah bagi angka komponen mungkin berbeza dengan sub-jumlah atau jumlah besar dalam jadual penerbitan disebabkan oleh pembundaran angka.

20. KADAR PERTUMBUHAN TAHUNAN DIKOMPAUN (CAGR)

Kadar pertumbuhan tahunan yang digunakan adalah merujuk kepada perbezaan bagi dua tempoh rujukan dan boleh juga dikira berdasarkan formula berikut :

$$y_t = y_0(1+r)^t$$

di mana,

$$r = \left[e^{\frac{1}{t} \ln\left(\frac{y_t}{y_0}\right)} - 1 \right] \times 100$$

di mana,

y_t =Nilai pada tahun semasa

y_0 =Nilai pada tahun sebelum

t =Bilangan tahun, $y_t - y_0$

r =Kadar pertumbuhan tahunan

21. SIMBOL DAN SINGKATAN

-	: tiada maklumat
0	: nilai kurang daripada 500
0.0	: nilai kurang daripada 0.05 juta
n.a	: tidak berkenaan
&	: dan
%	: peratus
}	: cantum
dll.	: dan lain-lain
CAGR	: kadar pertumbuhan tahunan dikompaun
RM	: Ringgit Malaysia
t.t.t.l.	: tidak terkelas di tempat lain
W.P.	: Wilayah Persekutuan
samb.	: sambungan

1. SCOPE AND COVERAGE

This publication used data from Economic Census 2023 (reference year 2022). Economic Census 2023 comprised of registered establishments including Water supply agencies under state government in the Water Supply; Sewerage, Waste Management and Remediation Activities Services. This sector encompass of six (6) industries at 3-digit level according to the Malaysia Standard Industrial Classification (MSIC), 2008 Version 1.0 section E, is in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4 United Nations. The complete lists of industry covered as per appendix.

2. SOURCE OF FRAME

The main source for the establishment statistics frame is from the Malaysia Statistical Business Register (MSBR), while for the Accommodation sub-sector, includes unregistered homestay. MSBR is a list of organisations/ enterprises operating in Malaysia that includes the Register of Companies (ROC), Register of Business (ROB) and Limited Liability Partnership (LLP) registered with the Companies Commission of Malaysia (CCM) as well as organisations registered with local authorities (LA) and professional bodies. The list in MSBR is updated regularly based on surveys and censuses conducted by the Department of Statistics Malaysia (DOSM) and administrative data sources from various agencies. The main source of administrative data is from the CCM.

In addition, DOSM also works together to obtain the latest information from other agencies such as the Employees' Provident Fund (EPF), the Royal Malaysian Customs Department, the Inland Revenue Board (IRB), LA and professional bodies. The frame is updated by taking into account new establishments and any changes in the status of the establishments such as closed down, not in operation, change in activity and location/ correspondence address so as to ensure that the frame is at the most current status.

3. TYPE OF BUSINESS ACTIVITY

Type of business activity refers to both principal and secondary activities. The principal activity refers to the activity to which the establishment devoted most of its resources or activity which derived most of its income. Secondary activities are defined as those incidental or ancillary to the principal activity. The classification of the industry of the establishment is based on the principal activity and is in accordance with the Malaysia Standard Industrial Classification (MSIC), 2008 Version 1.0 in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC) Revision 4, United Nations, with modifications to suit local conditions.

4. **CONCEPTS AND DEFINITIONS**

The definition adopted in this publication based on the recommendations of The MSIC 2008 Version 1.0. This concept adheres to accept practices, thereby facilitating data comparison at the international level.

Water supply, sewerage, waste management & remediation activities comprised of activities related to waste management includes collection, treatment & disposal such as scheduled waste, solid waste & waste water from industrial and household, including recovery materials & contaminated sites. The waste from the treatment process can be disposed of or used as input for other production process. Related activities in water treatment and supply are also included in this sector;

5. **CENSUS YEAR**

Census year refers to the year in which a census was conducted.

6. **REFERENCE YEAR**

The reference year of the census was the calendar year 2022. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering at least six (6) months in the reference year.

7. **METHOD OF COLLECTION**

This survey was generally conducted through three (3) methods of data collection, namely:

7.1 **Online method through the e-BE portal**

This method targets respondents who have used this method for previous routine surveys.

7.2 **Data collection method via e-mail, post, fax and telephone**

This method targets respondents who have used this method for previous routine surveys. Respondents were given a period of one month to complete and return the questionnaire to the DOSM.

7.3 **Face-to-face data collection method**

Field work operation is carried out to get feedback from establishments that have not yet given answers from the two methods above and this method also targets establishments that have never been involved in a routine survey the DOSM.

8. REPORTING UNIT

The reporting unit used in the Economic Census 2023 was the establishment. The establishment is defined as “an economic unit engaged in one activity, under a single legal entity and operating in a single physical location”. Each establishment was assigned an industry classification based on its principal activity. In the case of a multi-activity entity, units engaged in separate activities in the same location constituted distinct establishments.

Thus, each branch of a multi-branch organization at a different location was conceptually treated as a different establishment. The establishment was requested to give separate returns for each activity in terms of value. However, if in practice, the accounts were centrally kept such that it was not possible to obtain separate data for each individual unit or branch. The entity or enterprise was treated as a single reporting unit and allowed to submit a consolidated questionnaire covering all the units or branches.

9. LEGAL STATUS

The legal status of an establishment has been defined as follows:

9.1 Individual proprietorship

Refer to a business, owned and operated by one person for his own profit. The owner has the exclusive right to control the operation of the establishment.

9.2 Partnership

Refer to a group of individuals who agree to contract and to carry out a business with the objective of profit making. All shareholders or anyone could manage the business for all parties. A trading partnership must comprise of at least two members and should not exceed a maximum of twenty members.

9.3 Limited liabilities partnership

Refer to business entity regulated under the Limited Liability Partnerships Act 2012. It is featured with the protection of limited liability to its partners similar to the limited liability enjoyed by shareholders of a company coupled with flexibility of internal business regulation through partnership arrangement similar to a conventional partnership.

9.4 **Private limited company**

A private company established to undertake a business with the objective of making a profit. The shares are closely held by the shareholders of the company who have control over its operation.

Characteristics:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owners;*
- ii. Number of its shareholders between 2 - 50 members;*
- iii. Company owners have limited liability;*
- iv. Shareholders who own 51 per cent or more of the total shares shall be entitled to manage the company. The company's shares can be traded but not in the open market;*
- v. Trading of share must be with the consent of the other shareholders;*
- vi. Not listed on the Stock Exchange; and*
- vii. Business life expectancy is longer and can be identified by the words "Sendirian Berhad" (Sdn. Bhd.) at the end of the company name.*

9.5 **Public limited company**

A public limited company is a company established with limited liability, by a minimum of two persons to operate the business with the objective of making a profit. The shares in a public limited company are openly held and in the case of company listed on the Bursa Malaysia, the shares are freely transferable.

Characteristic:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owner;*
- ii. Owned by the shareholders and there is no limit to the shareholder;*
- iii. Management of the company is under the board of director responsibilities as appointed by shareholders; and*
- iv. Listed on Bursa Malaysia.*

9.6 **Co-operative**

Refer to a voluntary association with unrestricted number of members and registered under the Co-operatives Act 1993. Funds are collectively owned to meet the needs of members.

9.7 **Public corporation**

Refer to an undertaking set up under a Special Act Parliament or by the State Legislature.

9.8 **Private non-profit making organization**

Refer to non-stock company set up with limited liability. It comprises mainly welfare, religious, educational, health, cultural, recreational and other organisations providing social and community services to households. These services are provided free of charge or at prices, which do not necessarily or fully cover the cost of providing such services (subsidy). Any profit made is reinvested in the organisation.

10. **OWNERSHIP**

The ownership of an establishment is classified by the residential status of the owner (s) of the majority (more than 50%) of the paid-up capital and not by their citizenship status. In instances where each party (Malaysian Resident and Non- Malaysian Resident) held equal shares in the business, the establishments were classified as "Joint Ownership".

A Malaysian Resident is any individual, company or other organization ordinarily domiciled in Malaysia for a period of at least one year. Malaysian registered branches and incorporated subsidiaries of foreign based/origins are also regarded as Residents.

A Non-Malaysian Resident is any individual, company or other organization ordinarily domiciled in a country other than Malaysia. Foreign branches and/or subsidiaries abroad owned by Malaysian Residents are also regarded as Non-Residents.

11. **VALUE OF GROSS OUTPUT**

11.1 *Value of gross output of water supply; sewerage, waste management and remediation activities sector is defined to include the following items:*

- + Total income from main activities*
- + Fees received for processing of goods for other establishments on their materials*
- + Income from service for repairs and maintenance*
- + Value of goods/ materials purchased for resale without further*
- + Value of other industrial work done*
- + Professional fees received*
- + Commissions and brokerage earned*
- + Rental income received from others*
- + Royalties, copyrights, licensing and franchise fees*
- + Others operating income*

11. VALUE OF GROSS OUTPUT

11.1 *Value of gross output of water supply; sewerage, waste management and remediation (Cont.) activities sector is defined to include the following items:*

- + *Capital expenditure by self-produced/ built*
- *Purchase of treated water*
- *Cost of goods/materials purchased for resale without undergoing further processing*
- + *Research and development expenditure (in-house)*

12. VALUE OF INTERMEDIATE INPUT

12.1 *Value of intermediate input of water supply; sewerage, waste management and remediation activities sector is defined to include the following items:*

- + *Purchase of raw water*
- + *Subcontractor payment*
- + *Disposal charges*
- + *Cost of raw materials/components/parts used*
- + *Materials used for repairs and maintenance*
- + *Factory requisites*
- + *Stationery and office supplies consumed*
- + *Water purchased*
- + *Electricity purchased*
- + *Fuel, lubricants and gas used*
- + *Payments for processing work done by others on materials supply by this establishment*
- + *Payments for current repairs and maintenance work done by others on this establishment's fixed assets*
- + *Research and development expenditure*
- + *Transportation*
- + *Travelling expenses*
- + *Accounting, auditing and secretarial fees*
- + *Legal fees*
- + *Management fees*
- + *Entertainment expenses*
- + *Postage and courier service charges*

12. VALUE OF INTERMEDIATE INPUT

12.1 *Value of gross output of water supply; sewerage, waste management and remediation (Cont.)* activities sector is defined to include the following items:

- + Bank charges
- + Insurance premium on building, machinery, transport equipment and goods.
- + Commission and agency fees
- + Advertising and promotion
- + Professional charges
- + Payment for data processing and other services related to information technology
- + Telecommunication fees
- + Other payments for non-industrial services
- + Operational lease (exclude payment for rent of land)
- + Royalties paid to: Non-Government organisations/ corporate sponsorship
- + Others operating expenditure
- + Fees paid to non-working directors for their attendance at Board of Directors, meetings
- + Value of free wearing apparel provided
- + Staff training cost
- + Payment to other establishment for providing workers
- + Payment for security services

13. VALUE ADDED

Value added is the difference between the value of gross output and intermediate input. It is approximately equivalent to commercial profit, salaries and wages, depreciation and indirect taxes; plus, interest paid less interest received.

14. NUMBER OF PERSONS ENGAGED

Employment covers all persons engaged during December or the last pay period of the reference year. The number of persons engaged was classified under the following categories:

14.1 Working proprietors and active business partners

This category refers to all individual proprietors and partners, part-time or full-time, who are actively engaged in the work of the establishment. Therefore, it excludes silent and inactive partners.

14.2 Unpaid family workers

Include all household members (full-time or part-time) to the owners of the establishment who perform a specified job and work for a minimum of one third of the normal working time for the establishment, but do not receive regular payment either in cash or in kind for the work done. Such workers generally receive food, shelter and other support as part of the household of an owner but this would continue whether they worked in the establishment or not.

14.3 Paid full-time employees

Refer to all paid workers (full-time) who work for at least six hours a day and/or 20 days a month. All such employees are to be categorised according to Malaysia Standard Classification of Occupations 2020 (MASCO) as follows:

i) **Manager, professional and researcher included:**

a. Manager

Refer to those who devise, analyse, formulate, direct and advise on government policy, and make, amend and repeal laws, public rules and regulations, and represent and act on behalf of the government, and oversee the interpretation and implementation of policies and government legislation, or carry out similar tasks on behalf of special interest organisations, or plan, organise, lead, control and coordinate the policies and activities of enterprises, organisations, departments or the internal section; and

b. Professional

Refer to those responsible for increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these three activities.

ii) **Technicians and associate professionals**

Refer to those who perform technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.

iii) **Clerical, services & sales workers, craft workers, plant & machine operators and related occupations includes:**

a. Clerical support workers

Refer to those who record, organise, store and retrieve related information and perform clerical duties especially in connection with administrative operations, handling of money, travel arrangements and requests for information and appointments;

b. Service and sales workers

Refer to those who provide personal services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments as well as at stalls and markets;

c. Craft and related trades workers

Refer to those who apply their specific knowledge and skills in the fields of mining and construction, metal forming, and erect metal structures, make, fit, maintain and repair machinery, equipment or tools, carry out printing work as well as produce or process foodstuffs, textiles, or wooden, metal and other articles including handicraft goods; and

d. Plant & machine operators, and assemblers

Refer to those who operate and monitor industrial and agricultural machinery and equipment, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble product component parts according to strict specifications and procedures.

iv. Elementary occupations

Refer to those who perform simple, routine and non-systematic tasks which mainly require the use of handheld tools or with the assistance of simple machines, and in some cases considerable physical effort.

14.4 Paid part-time employees

Refer to all paid workers (part-time) who work less than six hours a day and/or 20 days month.

15. CATEGORY OF SKILLS

Category of skills has been categorized according to Malaysia Standard Classification of Occupations (MASCO) 2020 as follow:

i. High-skilled workers

Managers; Professionals; Technician & associate professionals;

ii. Semi-skilled workers

Clerical support workers; Service & sales workers; Craft & related trades workers; Plant & machine operators and assemblers; and

iii. Low-skilled workers

Elementary occupations.

16. SALARIES & WAGES

All payments (salaries, wages, bonuses, commissions, overtime pay and cash allowances including cost of living, housing, car, food, etc.) made throughout the reference year to all paid employees in each category. For all directly employed workers, total payments made before deductions for income tax and employees' contributions to Employees' Provident Fund (EPF)/ Social Security Organisation (SOCSO)/ Other provident/ Retirement Funds Incorporated (KWAP). The Employer's contribution to such funds as mentioned above should be excluded.

17. VALUE OF FIXED ASSETS

Fixed assets cover all goods, new or used, tangible or intangible, which have a normal economics life span of more than one year. For instance land, building & structure, transport equipment, computer, machinery & equipment, furniture & fittings and other assets. Other assets also include biological assets namely trees/ crops (except for logging trees that intended for logging), livestock and aquaculture fisheries which can produce products repeatedly and have a life expectancy of more than one year.

Value of assets as at the beginning and end of 2022 was based on net book value. Purchases alterations and major repairs or capital expenditure during the year were valued at actual costs incurred. Value of assets sold during the year refers to the actual value.

18. WOMEN-OWNED ESTABLISHMENT

Women-owned establishment refers to a minimum of 51 per cent of the equity held by a women OR the biggest shareholders are women and the establishment is managed by a women OR the Chief Executive Officer or Managing Director is women that owns at least 10 per cent of the equity.

19. ROUNDING

The sum of the component figures may not tally with the sub-total or total figures due to rounding.

20. COMPOUND ANNUAL GROWTH RATE (CAGR)

The calculation of compound annual growth rate (r) is based on the following formula:

$$y_t = y_0 (1+r)^t$$

Where,

$$r = \left[e^{\frac{1}{t} \ln\left(\frac{y_t}{y_0}\right)} - 1 \right] \times 100$$

where,

y_t	=	Value of current year
y_0	=	Value of previous year
t	=	Number of years, $y_t - y_0$
r	=	Annual growth rate

21. SYMBOLS AND ABBREVIATIONS

-	: no information
0	: less than 500
0.0	: less than 0.05 million
n.a	: not available
&	: and
%	: per cent
}	: combine
etc.	: ec cetera
CAGR	: compound annual growth rate
RM	: Ringgit Malaysia
n.e.c	: not elsewhere classified
W.P.	: Federal Territory
cont'd	: continue



BAHAGIAN *PART* **5**

LAMPIRAN *APPENDIX*

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Piawaian Klasifikasi Industri Malaysia 2008 Ver. 1.0
Malaysia Standard Industrial Classification 2008 Ver. 1.0

Kumpulan Groups	Perkara Items	Keterangan Description
Penakungan, perawatan dan bekalan air <i>Water collection, treatment and supply</i>		
360	36001	Penulenan dan pengagihan air untuk tujuan bekalan air <i>Purification and distribution of water for water supply purposes</i>
	36002	Penyahmasinan air laut atau bawah tanah untuk menghasilkan air sebagai kepentingan produk utama <i>Desalting of sea or ground water to produce water as the principal product of interest</i>
Pembetungan <i>Sewerage</i>		
370	37000	Pembetungan dan aktiviti-aktiviti yang seumpamanya <i>Sewerage and similar activities</i>
Pengumpulan sisa <i>Waste collection</i>		
381	38111	Pengumpulan sisa pepejal yang tidak berbahaya (cth. sampah) di kawasan setempat <i>Collection of non-hazardous solid waste (i.e garbage) within a local area</i>
	38112	Pengumpulan bahan kitar semula <i>Collection of recyclable materials</i>
	38113	Pengumpulan sampah dalam tong sampah di kawasan awam <i>Collection of refuse in litter-bins in public places</i>
	38114	Pengumpulan sisa pembinaan dan runtuh <i>Collection of construction and demolition waste</i>
	38115	Operasi stesen pemindahan pembuangan sisa tidak berbahaya <i>Operation of waste transfer stations for non-hazardous waste</i>
	38121	Pengumpulan sisa berbahaya <i>Collection of hazardous waste</i>
	38122	Operasi stesen pemindahan pembuangan bagi sisa berbahaya <i>Operation of waste transfer stations for hazardous waste</i>

Kumpulan Groups	Perkara Items	Keterangan Description
Rawatan dan pelupusan sisa <i>Waste treatment and disposal</i>		
382	38210	Rawatan dan pelupusan sisa tidak berbahaya <i>Treatment and disposal of non-hazardous waste</i>
	38220	Rawatan dan pelupusan sisa berbahaya <i>Treatment and disposal of hazardous waste</i>
Pemulihan semula bahan <i>Material recovery</i>		
383	38301	Meremukkan secara mekanikal sisa logam <i>Mechanical crushing of metal waste</i>
	38302	Meleraikan peralatan automobil, komputer, televisyen dan peralatan lain untuk pemulihan bahan <i>Dismantling of automobiles, computers, televisions and other equipment for material recover</i>
	38303	Memulih guna getah seperti tayar terpakai untuk menghasilkan bahan mentah sekunder <i>Reclaiming of rubber such as used tires to produce secondary raw material</i>
	38304	Penggunaan semula produk getah <i>Reuse of rubber products</i>
	38309	Pemulihan bahan t.t.t.l <i>Materials recovery n.e.c.</i>
Kumpulan Groups	Perkara Items	Keterangan Description
390	39000	Aktiviti pemulihan dan lain-lain perkhidmatan pengurusan sisa <i>Remediation activities and other waste management services</i>