



# Six Meeting of the Expert Group on Environmental Statistics

New York  
21-23 MAY 2019





# Environmental Statistics

## Department of Statistics

### Jordan

## E- WASTE



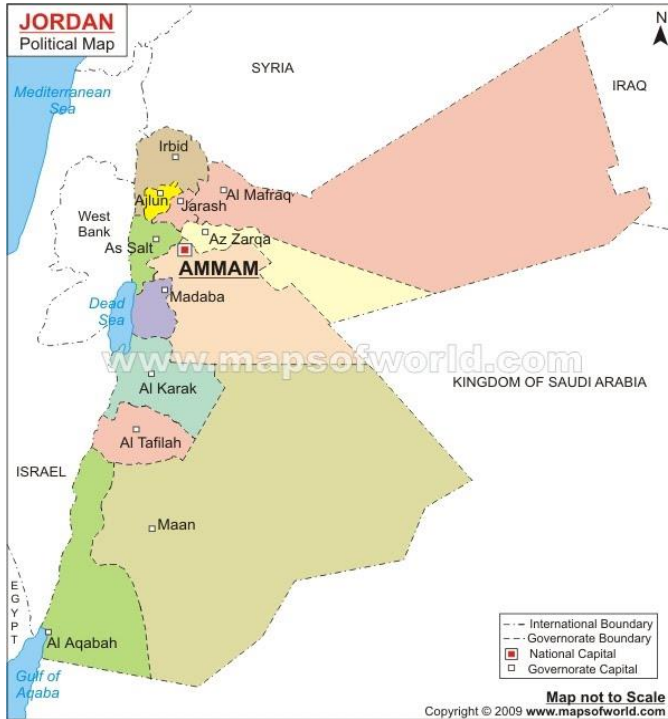
# CONTENTS



- ❖ Introduction
- ❖ Need for environmental indicators
- ❖ SDGs indicators in Jordan
- ❖ waste statistics in Jordan
- ❖ E-Waste statistics in Jordan



# Brief about Jordan



- Total Population (000): **10.053.**
- Population Density (person per Km<sup>2</sup>): **113.2.**
- Population Growth Rate for Jordanian (%): **2.4.**
- Population doubling time for Jordanian (year): **29.**
- Average household private size(person): **4.8.**



# Environmental information



- 1995s: data/statistics on state of environment
- 2006s: development of sectoral indicators  
agriculture, energy, transport, waste, water
- 2010s: sustainable development indicators  
and accounting
- integrating social and economic dimensions  
of the environment

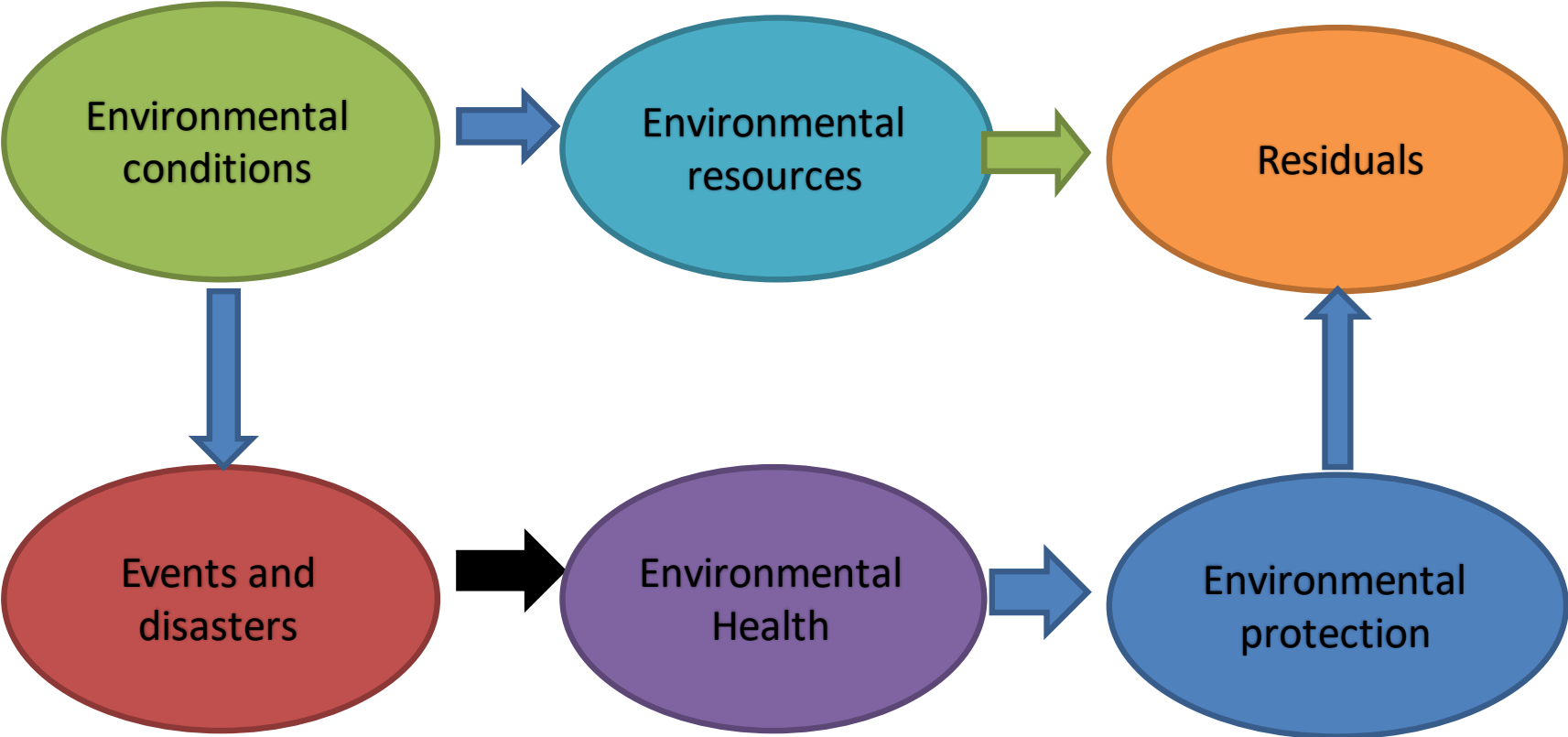
# Environmental information

1. Physical data; stocks, uses and quality of natural/environmental resources, emissions of pollutants
2. Monetary data; environmental protection expenditures and environmental taxes



Environmental accounting •

# Framework of Environmental Statistics Information (DOS)



# Need for environmental Statistics indicators



**Environmental statistics/indicators collected:**

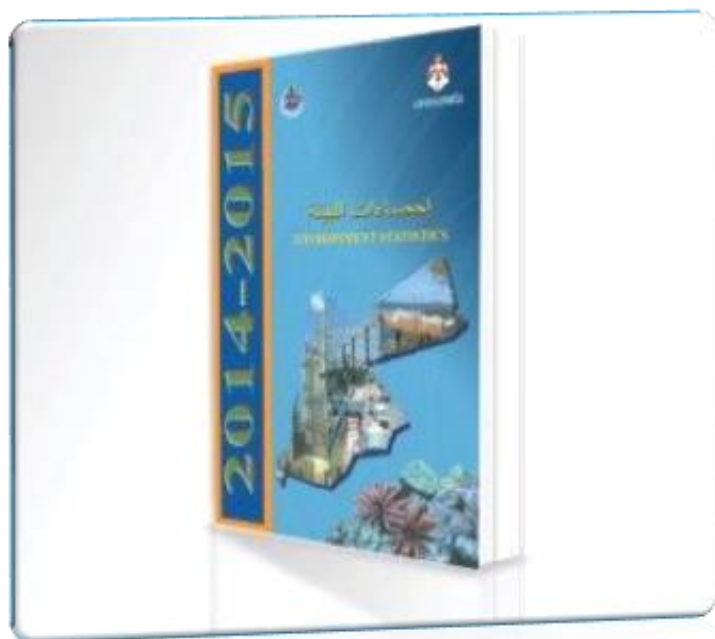
- ❖ to support policy/decision making
- ❖ to provide data for scientific researches
- ❖ to inform public
- ❖ to meet international data demand



# Environment Statistics Division

- ✓ The Division Provide statistical data on the various elements of the environment and their distribution in Jordan.
- ✓ Provide data on available natural resources, inventory and safe extraction of those resources.
- ✓ Provide data on environmental pollutants according to their types, sources and limits on the environment.
- ✓ Provide various environmental indicators.
- ✓ Establishment of an environmental database.
- ✓ Provide information on actions taken to protect environment.

# Environment Statistics in Jordan



The 20th Annual Bulletin of Environmental Statistics for 2015-2014 adopted the United Nations Development of Environment Statistics Framework (FDES) to assist countries in standardizing the methodologies, definitions and use of the standardized classifications in environmental information and statistics.

The 21th annual Bulletin for Environment Statistics 2016-2017 is to be published very soon, and the Bulletin of 2018/2019 is being updating.



# DOS Pathway toward SDGs



The goals of sustainable development cover many environmental issues as follows:

Goal # 6: Clean Water and Hygiene.

Goal # 7: Clean and Affordable Energy.

Goal # 11: Sustainable Cities and Communities.

Goal # 12: Responsible Consumption and Production and Climate Action.

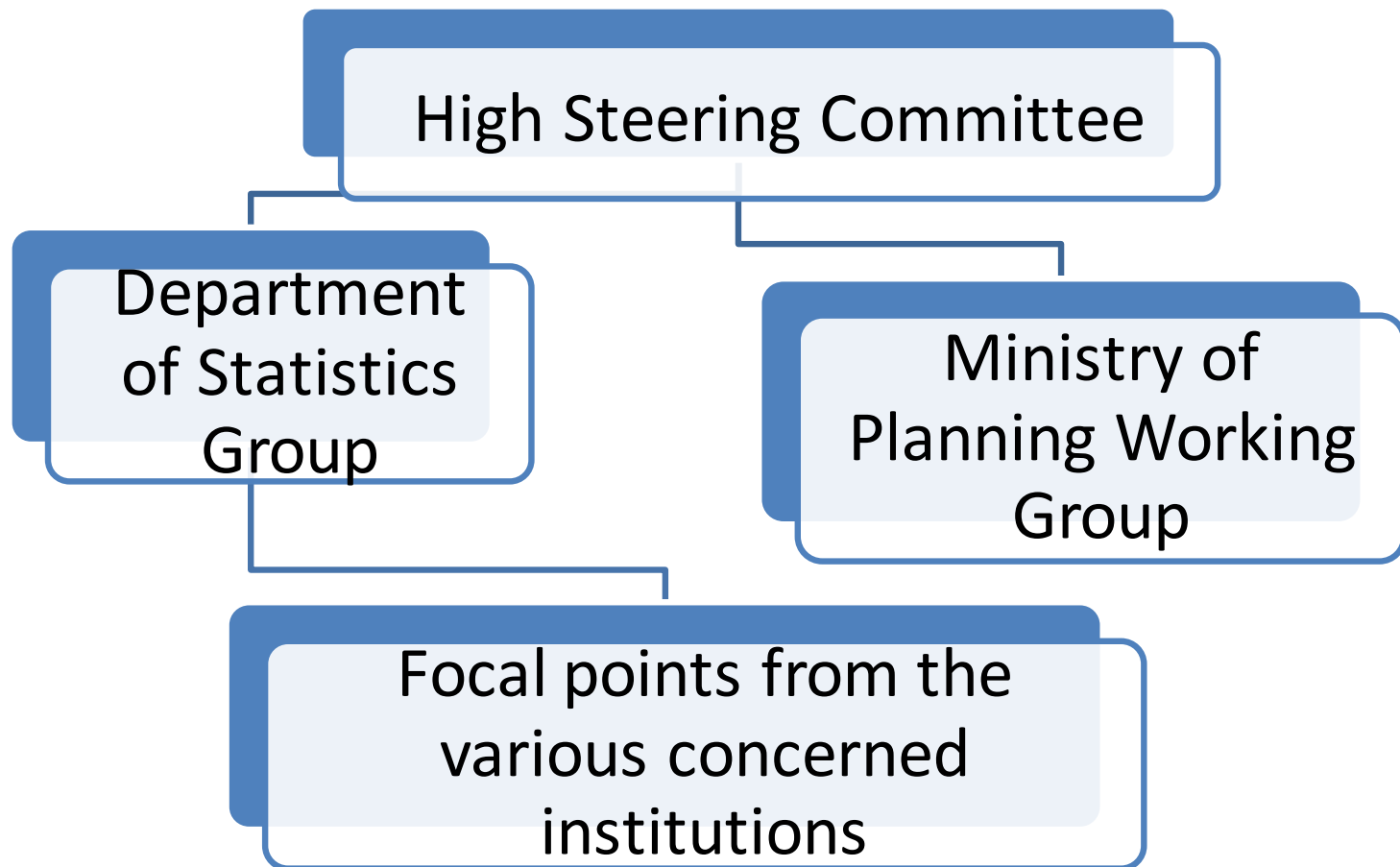
Goal # 13: Underwater Life.

Goal# 14: Ensure sustainable Consumption and production patterns

Goal # 15: Wildlife.



# Mechanism of implementation and work





# SDGs indicators in Jordan



THE GLOBAL GOALS



| The Available indicators by goal |                  |                      |              |
|----------------------------------|------------------|----------------------|--------------|
| Goal                             | Total indicators | Available indicators | %            |
| First goal                       | 12               | 2                    | 16.7         |
| Second goal                      | 14               | 6                    | 42.9         |
| Third goal                       | 26               | 24                   | 92.3         |
| Fourth goal                      | 11               | 10                   | 90.9         |
| Fifth goal                       | 14               | 6                    | 42.9         |
| Sixth goal                       | 11               | 7                    | 63.6         |
| Seventh goal                     | 6                | 4                    | 66.7         |
| Eighth goal                      | 17               | 6                    | 35.3         |
| Ninth goal                       | 12               | 1                    | 8.3          |
| Tenth goal                       | 11               | 0                    | 0.0          |
| Eleventh goal                    | 15               | 8                    | 53.3         |
| Eleventh goal                    | 13               | 6                    | 46.2         |
| Thirteenth goal                  | 7                | 4                    | 57.1         |
| Fourteen goal                    | 10               | 1                    | 10.0         |
| Fifteenth goal                   | 14               | 10                   | 71.4         |
| Sixteenth goal                   | 23               | 1                    | 4.3          |
| Seventeenth goal                 | 25               | 5                    | 16.0         |
| <b>Total</b>                     | <b>241</b>       | <b>101</b>           | <b>41.9%</b> |

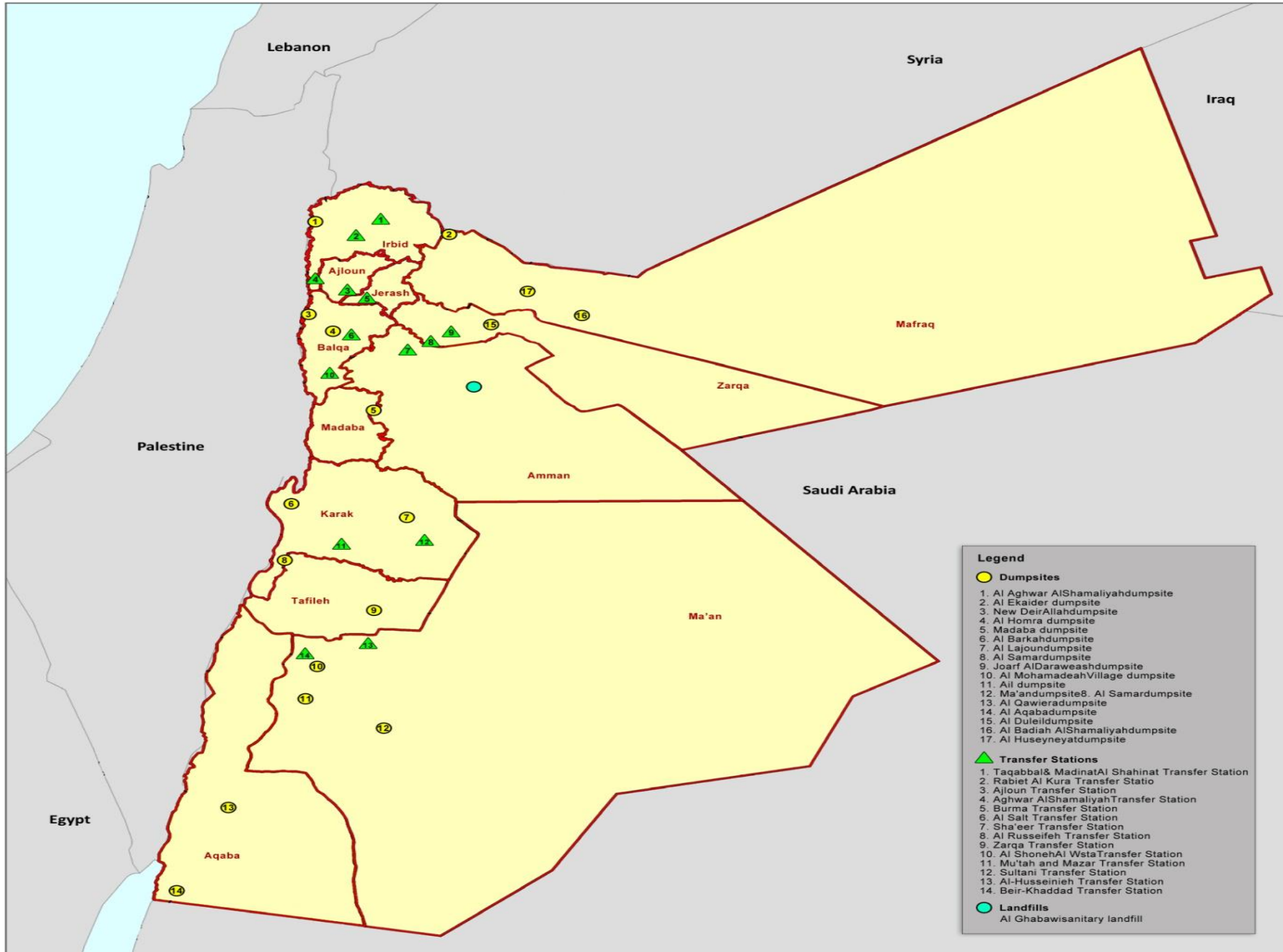


## ❖ Waste statistics in Jordan

حصة الفرد من النفايات المجمعة حسب المحافظة ، 2017

### Per Capita Waste Collection by Governorate, 2017

| Governorate | حصة الفرد (غرام/ يوم)<br>Per capita (grams / day) | عدد السكان<br>population | النفايات البلدية المجمعة (طن)<br>Municipal waste collected<br>(tons) | المحافظة |
|-------------|---|--------------------------|--|----------|
| Amman       | 747.6   | 4226700                  | 1153400  | العاصمة  |
| Balqa       | 1566.7  | 518600                   | 296563   | البلقاء  |
| Zarqa       | 728.0   | 1439500                  | 382520   | الزرقاء  |
| Madaba      | 1152.9  | 199500                   | 83950  | مادبا    |
| Irbid       | 898.8   | 1867000                  | 612470   | اربد     |
| Mafraq      | 1170.7  | 580000                   | 247835   | المفرق   |
| Jarash      | 1344.0  | 250000                   | 122640   | جرش      |
| Ajlun       | 1513.2  | 185700                   | 102565   | عجلون    |
| Karak       | 1865.8  | 333900                   | 227395   | الكرك    |
| Tafiela     | 2391.7  | 101600                   | 88695  | الطفيلة  |
| Ma'an       | 1342.1  | 152000                   | 74460  | معان     |
| Aqaba       | 226.7   | 198500                   | 16425  | العقبة   |
| The Kingdom | 929.0   | 10053000                 | 3408918  | المملكة  |

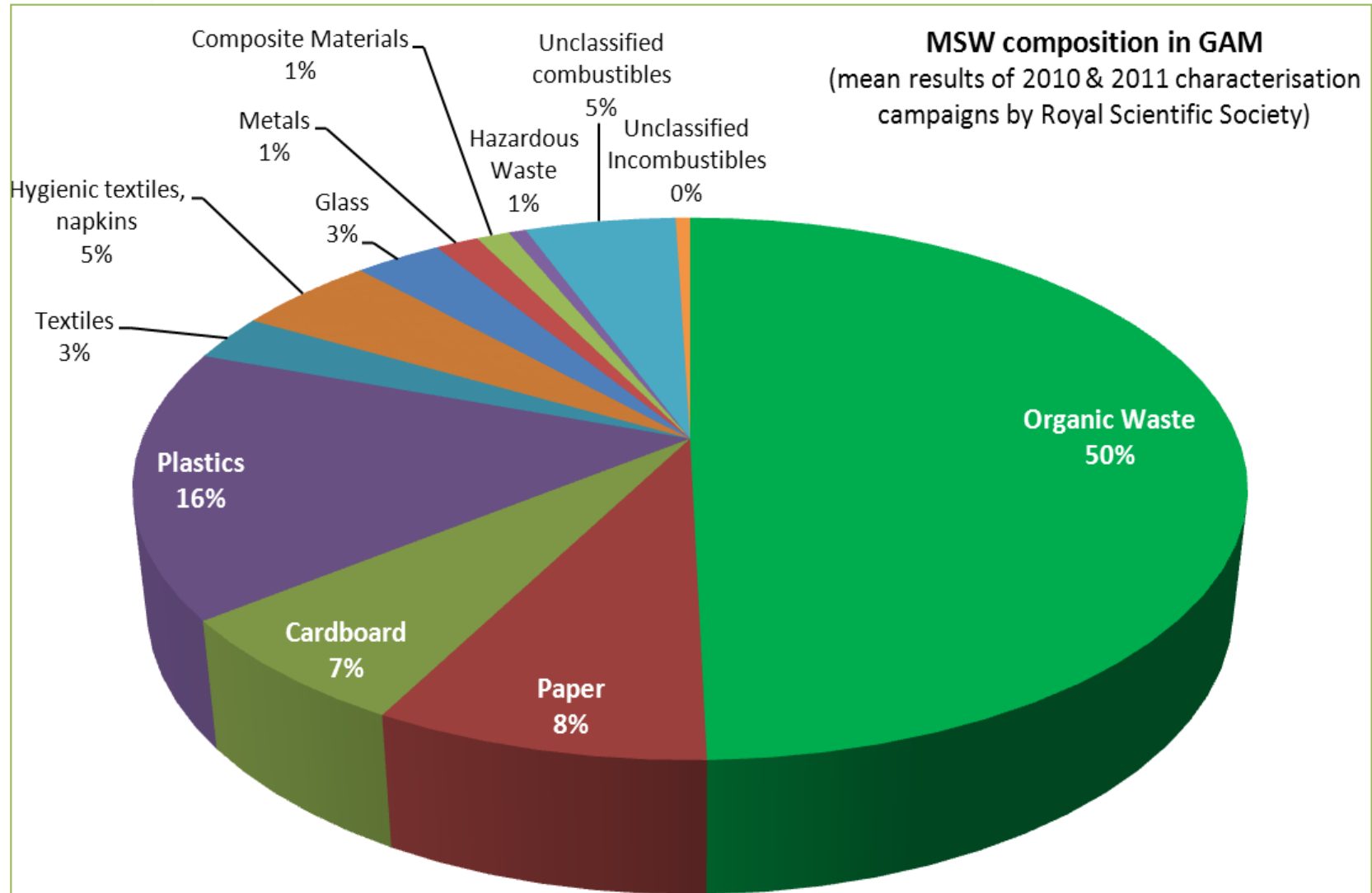


**Legend**

- **Dumpsites**
  1. Al Aghwar AlShamaliyahdumpsite
  2. Al Ekaider dumpsite
  3. New DeirAllahdumpsite
  4. Al Homra dumpsite
  5. Madaba dumpsite
  6. Al Barkahdumpsite
  7. Al Lajoundumpsite
  8. Al Samardumpsite
  9. Joarf AlDaraweashdumpsite
  10. Al MohamadeahVillage dumpsite
  11. Ail dumpsite
  12. Ma'andumpsite
  13. Al Qawieradumpsite
  14. Al Aqabadumpsite
  15. Al Duleildumpsite
  16. Al Badiah AlShamaliyahdumpsite
  17. Al Huseyneyatdumpsite
- ▲ **Transfer Stations**
  1. Taqabbal& MadinatAl Shahinat Transfer Station
  2. Rabiet Al Kura Transfer Statio
  3. Ajloun Transfer Station
  4. Aghwar AlShamaliyahTransfer Station
  5. Burma Transfer Station
  6. Al Sait Transfer Station
  7. Sha'eer Transfer Station
  8. Al Russeifeh Transfer Station
  9. Zarqa Transfer Station
  10. Al ShonehAl WstaTransfer Station
  11. Mu'tah and Mazar Transfer Station
  12. Sultani Transfer Station
  13. Al-Huseineieh Transfer Station
  14. Beir-Khaddad Transfer Station
- **Landfills**
  - Al Ghabawisanitary landfill



# Waste Composition Analysis





## Requirements of Solid Wastes Collection and Transport by Region, 2017

| Region | أخرى   | عدد العاملين في البيئة<br>Number of Environmental<br>Employees |                            |                   | وسائط<br>النقل        | عدد<br>الحاويات         | الإقليم |
|--------|--------|--|----------------------------|-------------------|-----------------------|-------------------------|---------|
|        | Other  | المجموع<br>Total   | حماية البيئة<br>Protection | جمع<br>Collection | Transport<br>Vehicles | Number of<br>Containers |         |
| Middle | 18238  | 11000  | 1294                       | 9706              | 681                   | 63452                   | الوسط   |
| North  | 30110  | 2900   | 133                        | 2767              | 501                   | 30780                   | الشمال  |
| South  | 20900  | 980  | 77                         | 903               | 218                   | 29810                   | الجنوب  |
| Total  | 69,248 | 14,880   | 1,504                      | 13,376            | 1,400                 | 124,042                 | المجموع |

Source: Department of Statistics

المصدر: دائرة الإحصاءات العامة



# E- WASTE statistics in Jordan





# With support of UNU, Environment Statistics Division carried out Quality workshop in 15-17 OCT 2018.

To Develop the expertise in the field of electronic waste statistics, which support in provide statistics about Hazardous E waste and relation with SDGs.

A number of stakeholders, such as the Ministry of Environment, the Ministry of Municipalities and the General Customs Department





# Jordan EEW 15-18 Oct. workshop outputs

- ❖ Assess the reality of currently available administrated record of EEW (data and indicators).
- ❖ Identify gaps (data availability, reporting process, detailed data, financial gaps for monitoring and evaluation).
- ❖ Training in EEE put on market tool.
- ❖ Develop a plan to provide the rest of the data and indicators.



# Current EE product and EEW Disposal methods Statistics Situation

*Between Hard work and Reliability*



- ❖ External Trade database.
- ❖ Solid Waste Survey in services sector (Hotels and Education Activities).
- ❖ Electronic waste Survey in finance and Insurance sector and in software maintenance activities.
- ❖ Medical Solid and liquid Waste Survey.
- ❖ Hazardous Solid and Liquid Wastes Survey in the industrial activity.
- ❖ Households income and expenses survey.



# Distribution of Housing units by Household Appliances and Urban/ Rural (%)



| Household Appliances | Urban | Rural | Kingdom |
|----------------------|-------|-------|---------|
| Refrigerator         | 98    | 96.8  | 97.8    |
| TV                   | 98    | 96.3  | 97.8    |
| Computer/ laptop     | 32.7  | 21.4  | 31.4    |
| Washing Machine      | 97.3  | 95.7  | 97.1    |
| Microwave            | 56    | 39.7  | 54.2    |
| Dishwasher           | 6.8   | 4.1   | 6.5     |
| Vacuum Cleaner       | 68.6  | 60    | 67.6    |
| Tablets              | 16    | 12    | 15.5    |
| Smart phone          | 93.5  | 87.4  | 92.8    |
| Air Conditioner      | 33.2  | 22.5  | 32.0    |

Source: Household Expenditures & Income Survey 2017



# Quantity and type of EEW from Hotel and Education activities by disposing Methods



| EEW               | Sell  | Granted to Other | Recycler | Dump  | Others |
|-------------------|-------|------------------|----------|-------|--------|
| Personal computer | 77%   | 6.5%             | 5%       | 6.7%  | 5%     |
| Printers          | 34.7% | 1.3%             | 31.1%    | 24.4% | 9%     |
| Conditioners      | 69%   | 0%               | 17.5%    | 0     | 14%    |
| Fans              | 29.4% | 1.5%             | 26.1%    | 38.3% | 5%     |
| Refrigerators     | 66.3% | 0%               | 16.8%    | 12%   | 5%     |







جدول 6: كمية ونوع المخلفات الإلكترونية والكهربائية الناتجة عن أنشطة المالية والبنوك والبرمجيات والصيانة حسب أسلوب التخلص لعام

Table.6.: Quantity and Type of Electronic and Electrical Waste Produced from Banking & Insurance & Software & maintenance Activities by Disposing Method, 2017

| Waste Type                   | Unit       | أسلوب التخلص |              |                 |   |                     | الكمية        | الوحدة        | نوع النفاية |                             |
|------------------------------|------------|--------------|--------------|-----------------|---|---------------------|---------------|---------------|-------------|-----------------------------|
|                              |            | أخرى         | بيع          | مكب خاص         | تسليمه الى جهة<br>التدوير               | الجهة<br>أخرى       |               |               |             | Dump                        |
|                              |            | Other        | Sell         | Special<br>Dump | Delivered to<br>Recycling<br>Specialist | Granted to<br>Other | Quantity      |               |             |                             |
| personal Computer            | No.        | 506          | 2130         | 0.0             | 165                                     | 457                 | 24            | 3282          | عدد         | كمبيوتر شخصي                |
| persona Laptop               | No.        | 50           | 67           | 0.0             | 12                                      | 60                  | 1             | 190           | عدد         | كمبيوتر محمول               |
| CRT Screen                   | No.        | 11           | 53           | 0.0             | 41                                      | 2                   | 4             | 111           | عدد         | شاشات CRT                   |
| LCD Screen                   | No.        | 260          | 1432         | 0.0             | 38                                      | 207                 | 9             | 1946          | عدد         | شاشات LCD                   |
| Scanners                     | No.        | 26           | 149          | 0.0             | 9                                       | 16                  | 0             | 200           | عدد         | ماسح ضوئي                   |
| Printers                     | No.        | 141          | 763          | 0.0             | 1056                                    | 116                 | 15            | 2091          | عدد         | طابعات                      |
| Dry Batteries                | No.        | 0            | 0            | 0.0             | 0                                       | 0                   | 3172          | 3172          | عدد         | بطاريات جافة                |
| Chargeable Batteries         | No.        | 42           | 6            | 0.0             | 676                                     | 4                   | 11            | 739           | عدد         | بطاريات قابلة للشحن         |
| Cartridge Ink                | No.        | 2366         | 0            | 0.0             | 3238                                    | 0                   | 35599         | 41203         | عدد         | عبوات أحبار كارتريج         |
| Refill Ink                   | No.        | 0            | 0            | 0.0             | 1250                                    | 0                   | 2497          | 3747          | عدد         | عبوات أحبار معبأة           |
| Accessories                  | No.        | 340          | 288          | 0.0             | 40                                      | 44                  | 6472          | 7184          | عدد         | اكسوارت                     |
| Compact Fluorescent Bulb CFL | No.        | 0            | 0            | 0.0             | 0                                       | 50                  | 3382          | 3432          | عدد         | اللمبة الفلورية المدمجة CFL |
| Mobile                       | No.        | 0            | 15           | 0.0             | 380                                     | 0                   | 10            | 405           | عدد         | موبايل ( خلويات )           |
| Fluorescent (neon)           | No.        | 105          | 1443         | 0.0             | 163                                     | 0                   | 1252          | 2963          | عدد         | الفلورسنت ( نيون )          |
| Refrigerators                | No.        | 0            | 32           | 0.0             | 0                                       | 0                   | 0             | 32            | عدد         | ثلاجات                      |
| Televisions                  | No.        | 0            | 12           | 0.0             | 12                                      | 4                   | 2             | 30            | عدد         | تلفزيونات                   |
| Conditioners                 | No.        | 6            | 103          | 0.0             | 92                                      | 13                  | 2             | 216           | عدد         | مكيفات                      |
| Fans                         | No.        | 7            | 173          | 0.0             | 30                                      | 1                   | 77            | 288           | عدد         | مراوح                       |
| Electrical devices           | No.        | 1531         | 239          | 0.0             | 3298                                    | 144                 | 52            | 5264          | عدد         | نفايات كهربائية اخرى        |
| <b>Total</b>                 | <b>No.</b> | <b>5,391</b> | <b>6,905</b> | <b>0.0</b>      | <b>10,500</b>                           | <b>1,118</b>        | <b>52,581</b> | <b>76,495</b> | <b>عدد</b>  | <b>المجموع</b>              |

Table.3: Quantity and Type of Electronic and Electrical Waste Produced from Medical Activities by Disposing Method, 2017

| Waste Type                   | Unit       | Disposal Method |               |                 | أسلوب التخلص                               |                        |                                 | الكمية        | الوحدة     | نوع النفاية          |
|------------------------------|------------|-----------------|---------------|-----------------|--|------------------------|---------------------------------|---------------|------------|----------------------|
|                              |            | أخرى            | بيع           | مكب خاص         | تسليمه إلى<br>مختصة<br>بالتدوير            | ممنوحة إلى جهة<br>أخرى | تسليمه إلى<br>مختصة<br>بالتدوير |               |            |                      |
|                              |            | Other           | Sell          | Special<br>Dump | Delivered<br>to<br>Recycling<br>Specialist | Granted to<br>Other    | Dump                            | Quantity      |            |                      |
| personal Computer            | No.        | 47              | 63            | 1               | 37   | 0                      | 1                               | 149           | عدد        | تر شخصي              |
| persona Laptop               | No.        | 0               | 12            | 1               | 5  | 0                      | 0                               | 18            | عدد        | تر محمول             |
| CRT Screen                   | No.        | 12              | 10            | 2               | 9  | 0                      | 0                               | 33            | عدد        | ت CRT                |
| LCD Screen                   | No.        | 12              | 71            | 0               | 10   | 0                      | 4                               | 97            | عدد        | ت LCD                |
| Scanners                     | No.        | 5               | 15            | 0               | 20   | 0                      | 5000                            | 5040          | عدد        | م ضوئي               |
| Printers                     | No.        | 33              | 70            | 2               | 21   | 1                      | 15                              | 142           | عدد        | ت                    |
| Dry Batteries                | No.        | 0               | 28052         | 550             | 374  | 0                      | 9488                            | 38464         | عدد        | بات جافة             |
| Chargeable Batteries         | No.        | 93              | 0             | 0               | 3  | 0                      | 45                              | 141           | عدد        | بات قابلة للشحن      |
| Cartridge Ink                | No.        | 0               | 3400          | 20              | 81   | 75                     | 7683                            | 11259         | عدد        | ت أحبار كارتدج       |
| Refill Ink                   | No.        | 0               | 0             | 0               | 0  | 0                      | 550                             | 550           | عدد        | ت أحبار معبأة        |
| Accessories                  | No.        | 26              | 0             | 0               | 40   | 0                      | 143                             | 209           | عدد        | ارت                  |
| Compact Fluorescent Bulb CFL | No.        | 0               | 0             | 0               | 0  | 0                      | 0                               | 0             | عدد        | الفلورية المدمجة CFL |
| Fluorescent (neon)           | No.        | 0               | 0             | 0               | 0  | 0                      | 0                               | 0             |            |                      |
| Refrigerators                | No         | 20              | 50            | 0               | 19   | 1                      | 0                               | 90            | عدد        | ت                    |
| Televisions                  | No.        | 11              | 63            | 0               | 11   | 1                      | 0                               | 86            | عدد        | تلفونات              |
| Conditioners                 | No.        | 22              | 62            | 0               | 37   | 1                      | 5                               | 127           | عدد        | ت                    |
| Fans                         | No.        | 104             | 171           | 0               | 51   | 4                      | 8                               | 338           | عدد        | ح                    |
| Electrical devices           | No.        | 5               | 569           | 0               | 19   | 0                      | 0                               | 593           | عدد        | ت كهربائية اخرى      |
| Other                        | No.        | 0               | 324           | 0               | 0  | 0                      | 251                             | 575           | عدد        | ا                    |
| <b>Total</b>                 | <b>No.</b> | <b>390</b>      | <b>32,932</b> | <b>576</b>      | <b>737</b>                                 | <b>83</b>              | <b>23,193</b>                   | <b>57,911</b> | <b>عدد</b> | <b>وع</b>            |

# Electronic and Electrical Waste



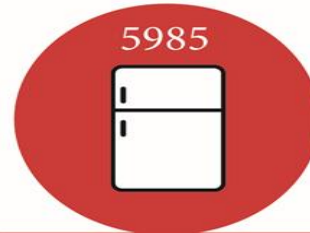
The results of the e-waste survey in the financial, insurance, and maintenance activities showed that the predominant method of disposing of these electronic waste was through the public dump, an average of 69%. The results also showed that the number of e-waste (computers, monitors, printers, etc.) The activities of financial, insurance and software 2017 amounted to 76,495 devices.

كمية ونوع المخلفات الإلكترونية والكهربائية الناتجة  
عن المنازل حسب الفئة (عدد) , 2018

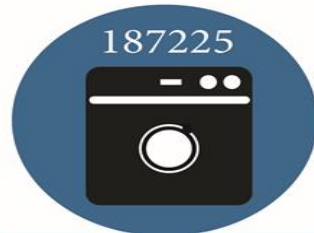
Quantity and type of Electronic and Electrical Waste  
Produced from Household Activities(No.) , 2018



2- شاشات عرض  
Screens and monitors



1- معدات تبادل حراري  
Temperature ex change  
equipment



4- معدات كبيرة  
Large equipment



3- مصابيح  
Lamps



6- أجهزة تكنولوجيا معلومات صغيرة  
Small IT



5- معدات صغيرة  
Small equipmernt



**Table .1: Quantity and Type of Electronic and Electrical Waste Produced from Household Activities by kingdom and Disposing Method, 2018**

| Waste Type  | Unit | Disposal Method |                |                 | أسلوب التخلص                            |                         |                  | الكمية<br>Quantity | الوحدة<br>Unit | CODE<br>UNU<br>Key | نوع النفاية  |
|---|------|-----------------|----------------|-----------------|---|-------------------------|------------------|--------------------|----------------|--------------------|--|
|   |      | أخرى            | بيع            | مكب خاص         | تسليمه الى<br>جهات مختصة<br>بال تدوير   | منحة الى<br>جهة<br>أخرى | مكب              |                    |                |                    |  |
|   |      | Other           | Sell           | Special<br>Dump | Delivered to<br>Recycling<br>Specialist | Granted<br>to Other     | Dump             |                    |                |                    |  |
| <b>Temperature exchange equipment</b>                                 |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>1</b>   |
| Air Conditioners (household and portable )                            | No.  | 545             | 1302           | 1330            | 105                                     | 1269                    | 1434             | 5985               | عدد            | 111                | معدات تبادل حراري  |
| <b>Screens and</b>  |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>2</b>   |
| Laptops (incl. tablets)   | No.  | 3005            | 1592           | 4111            | 2357                                    | 3803                    | 3497             | 18365              | عدد            | 303                | حواسيب محمولة (بما فيها اللوحية )                                    |
| Flat Display Panel Monitors (LCD, LED)                                | No.  | 3721            | 2750           | 3853            | 893                                     | 6798                    | 11055            | 29069              | عدد            | 309                | شاشات عرض مسطحة (LCD،LED )   |
| Flat Display Panel TVs (LCD, LED, Plasma)                             | No.  | 6374            | 3532           | 10817           | 7665                                    | 10127                   | 24188            | 62704              | عدد            | 408                | شاشات تلفزيون مسطحة (LED ، LCD ، بلازما )                            |
| <b>Lamps</b>  |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>3</b>   |
| Compact Fluorescent Lamps (incl. retrofit & non-retrofit)             | No.  | 59376           | 284601         | 0               | 82                                      | 381                     | 1845730          | 2190171            | عدد            | 502                | مصابيح فلورسنت مدمجة   |
| Straight Tube Fluorescent Lamps                                       | No.  | 15259           | 261702         | 464             | 1337                                    | 3545                    | 2084146          | 2366452            | عدد            | 503                | مصابيح فلورسنت ذو أنبوب مستقيم (نيون) قصير/طويل او دائري             |
| Special Lamps (e.g. professional mercury, high & low pressure sodium) | No.  | 19174           | 161148         | 0               | 512                                     | 7744                    | 2970618          | 3159196            | عدد            | 504                | مصابيح LED   |
| <b>Large equipment</b>  |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>4</b>   |
| Dishwashers   | No.  | 0               | 0              | 481             | 838                                     | 1449                    | 696              | 3464               | عدد            | 102                | غسالات صحون  |
| Kitchen equipment (e.g. large furnaces, ovens, cooking equipment)     | No.  | 6920            | 10783          | 24373           | 8233                                    | 16148                   | 24156            | 90614              | عدد            | 103                | معدات مطبخ ( الأفران الكبيرة والصغيرة و معدات الطهي)                 |
| Washing Machines (incl. combined dryers)                              | No.  | 7931            | 9769           | 24324           | 10171                                   | 17851                   | 23101            | 93147              | عدد            | 104                | غسالات ملابس ( مجففات المندمجة و عسارات )                            |
| <b>Small equipment</b>  |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>5</b>   |
| smal ventilators·irons ·clocks·adapters                               | No.  | 10487           | 17850          | 17304           | 15816                                   | 15922                   | 76816            | 154196             | عدد            | 201                | المرواح والمكايو والساعات والمحولات                                  |
| food(toaster·grills·food processing·frying pans                       | No.  | 3091            | 9892           | 8822            | 5020                                    | 10499                   | 32723            | 70046              | عدد            | 202                | معدات تجهيز الاطعمة مثل المقالي والشويات                             |
| Hot Water (f.i. Coffee·tea·water cookers)                             | No.  | 4314            | 5963           | 3472            | 3432                                    | 5816                    | 18265            | 41261              | عدد            | 203                | جهاز تسخين الماء ( تحضير القهوة والشاي)                              |
| Toys (e.g. car racing sets, electric trains, music toys,)             | No.  | 24759           | 24135          | 2741            | 270                                     | 21925                   | 152280           | 226109             | عدد            | 701                | العب مثل سيارات السباق والقطارات والدراجات و طائرات                  |
| Household medical equipment(e.g. thermometers, blood pressure meters  | No.  | 136             | 824            | 0               | 346                                     | 3286                    | 2661             | 7254               | عدد            | 801                | معدات طبية منزلية ( موازين الحرارة و اجهزة السكري و اجهزة ضغط الدم ) |
| <b>Small IT</b>   |      |                 |                |                 |   |                         |                  |                    |                |                    | <b>6</b>   |
| <b>معدات تكنولوجيا ومعلومات اتصالات صغيرة</b>                         |      |                 |                |                 |   |                         |                  |                    |                |                    |  |
| Mobile Phones (incl. smartphones, pagers)                             | NO.  | 33052           | 27381          | 12955           | 10204                                   | 23027                   | 110535           | 217155             | عدد            | 306                | طابعات، مانسحات ضوئية ، فاكسات و هواتف متنقلة بما فيه الهواتف الذكية |
| <b>Total</b>  |      | <b>198,143</b>  | <b>823,225</b> | <b>115,045</b>  | <b>67,283</b>                           | <b>149,590</b>          | <b>7,381,901</b> | <b>8,735,187</b>   |                |                    | <b>المجموع</b>   |

Table .2: Quantity and Type of Electronic and Electrical Waste Produced from Household Activities by Disposing Method, 2018/ Amman

| Waste Type  | Unit | Disposal Method |               |                 | أسلوب التخلص                            |                         |                | الكمية<br>Quantity | الوحدة<br>Unit | CODE<br>UNU<br>Key | نوع النفاية  |
|---|------|-----------------|---------------|-----------------|---|-------------------------|----------------|--------------------|----------------|--------------------|--|
|   |      | أخرى            | بيع           | مكب خاص         | تسليمه الى<br>جهات مختصة<br>بالتدوير    | منحة الى<br>جهة<br>أخرى | مكب            |                    |                |                    |  |
|   |      | Other           | Sell          | Special<br>Dump | Delivered to<br>Recycling<br>Specialist | Granted<br>to Other     | Dump           |                    |                |                    |  |
| <b>Temperature exchange equipment</b>                                 |      |                 |               |                 |   |                         |                |                    |                |                    | <b>1</b>   |
| Air Conditioners (household and portable )                            | No.  | 294             | 0             | 83              | 0                                       | 978                     | 769            | 2123               | عدد            | 111                | مكيفات هواء (مركبة في المنزل والمحمولة )، معدات تبريد                |
| <b>Screens and</b>  |      |                 |               |                 |   |                         |                |                    |                |                    | <b>2</b>   |
| Laptops (incl. tablets)   | No.  | 698             | 1576          | 234             | 1486                                    | 3105                    | 1173           | 8273               | عدد            | 303                | حواسيب محمولة (بما فيها اللوحية )                                    |
| Flat Display Panel Monitors (LCD, LED)                                | No.  | 176             | 1681          | 1369            | 377                                     | 5317                    | 2856           | 11777              | عدد            | 309                | شاشات عرض مسطحة (LCD،LED)  |
| Flat Display Panel TVs (LCD, LED, Plasma)                             | No.  | 139             | 1587          | 1833            | 5453                                    | 4869                    | 5922           | 19802              | عدد            | 408                | شاشات تلفزيون مسطحة (LCD، LED، بلازما )                              |
| <b>Lamps</b>  |      |                 |               |                 |   |                         |                |                    |                |                    | <b>3</b>   |
| Compact Fluorescent Lamps (incl. retrofit & non-retrofit)             | No.  | 0               | 53521         | 0               | 0                                       | 381                     | 889358         | 943260             | عدد            | 502                | مصابيح فلورسنت مدمجة   |
| Straight Tube Fluorescent Lamps                                       | No.  | 6883            | 13967         | 0               | 426                                     | 867                     | 638907         | 661050             | عدد            | 503                | مصابيح فلورسنت ذو أنبوب مستقيم (نيون) قصير/طويل او دائري             |
| Special Lamps (e.g. professional mercury, high & low pressure sodium) | No.  | 46429           | 17690         | 0               | 512                                     | 6796                    | 1887388        | 1958816            | عدد            | 504                | مصابيح LED   |
| <b>Large equipment</b>  |      |                 |               |                 |   |                         |                |                    |                |                    | <b>4</b>   |
| Dishwashers   | No.  | 0               | 0             | 0               | 97                                      | 1137                    | 462            | 1696               | عدد            | 102                | غسالات صحون  |
| Kitchen equipment (e.g. large furnaces, ovens, cooking equipment)     | No.  | 377             | 2341          | 4278            | 3569                                    | 5215                    | 5548           | 21328              | عدد            | 103                | معدات مطبخ ( الأفران الكبيرة والصغيرة و معدات الطهي)                 |
| Washing Machines (incl. combined dryers)                              | No.  | 1472            | 3064          | 4261            | 4929                                    | 8700                    | 10181          | 32607              | عدد            | 104                | غسالات ملابس ( مجففات المنمجة و عصارات )                             |
| <b>Small equipment</b>  |      |                 |               |                 |   |                         |                |                    |                |                    | <b>5</b>   |
| smal ventilators·irons ·clocks·adapters                               | No.  | 2613            | 3909          | 2135            | 5624                                    | 9254                    | 27360          | 50895              | عدد            | 201                | المرواح والمكايو والساعات والمحولات                                  |
| food(toaster·grills·food processing·frying pans                       | No.  | 6891            | 2114          | 7314            | 4496                                    | 9085                    | 25841          | 55740              | عدد            | 202                | معدات تجهيز الاطعمة مثل المغالي والشويات                             |
| Hot Water (f.i. Coffee·tea·water cookers)                             | No.  | 297             | 2709          | 816             | 2689                                    | 4635                    | 14904          | 26049              | عدد            | 203                | جهاز تسخين الماء ( تحضير القهوة والشاي)                              |
| Toys (e.g. car racing sets, electric trains, music tovs.)             | No.  | 7606            | 24172         | 2009            | 270                                     | 19633                   | 117135         | 170825             | عدد            | 701                | العاب مثل سيارات السباق والقطارات والدراجات وطائرات                  |
| Household medical equipment(e.g. thermometers, blood pressure meters  | No.  | 256             | 0             | 0               | 0                                       | 2860                    | 1731           | 4847               | عدد            | 801                | معدات طبية منزلية ( موازين الحرارة و اجهزة السكري و اجهزة ضغط الدم ) |
| <b>Small IT</b>   |      |                 |               |                 |   |                         |                |                    |                |                    | <b>6</b>   |
| Mobile Phones (incl. smartphones, pagers)                             | NO.  | 1520            | 16749         | 2227            | 5980                                    | 16661                   | 17485          | 60622              | عدد            | 306                | طابعات، ماسحات ضوئية ، فاكسات و هواتف متنقلة بما فيه الهواتف الذكية  |
| <b>Total</b>  |      | <b>75651</b>    | <b>145079</b> | <b>26559</b>    | <b>35908</b>                            | <b>99494</b>            | <b>3647021</b> | <b>4029712</b>     | <b>المجموع</b> |                    |  |

# EEW Statistics Challenges



- ❖ Data production sustainability.
- ❖ The Coverage of data.
- ❖ Absence of a comprehensive institutional framework for statistical data producers.
- ❖ Capacity Building.
- ❖ Awareness and education.
- ❖ Financial restrictions.
- ❖ Cooperation.
- ❖ Human resources restrictions.



# Challenges



- Some of Legal and legislative environment.
- There is no previous experience coordination between the different parties related to EEW.
- Reviewing needs for Specifications and standards related to electronic and electric equipment
- No Monitoring processes.
- Non Unified Classification and common concepts between the different parties.





# Action to do in the future



- Prepare e- waste inventory report -by possible support from germen government.
- Further national capacity building support.
- National consultation workshop.
- Technical assistance.
- Establish E- waste (sales , stocks) tracking mechanism.



# To Do in the future



- We need to harmonize e-waste catalogs and waste deposit method with Ministry of Environment & Ministry of Municipals Affairs and others .
- Strengthening corroboration and database linkage between the parties.
- Exchange the local and international expertise in E-Waste Statistics.
- Public Awareness-raising of the health impact of E-waste.





**Thanks for your  
attention**

