National Monitoring Information System for Waste

Waste Management strategy
link with SDG / National Monitoring
Information system
Jordan recognized Municipal Solid Waste as a pressing issue that needs immediate action.
Action laid in the National agenda for sustainable development 2006-2015

- Development of MSWM policies;
- Encouragement of reduction of generated MSW quantities;
- Maximization of the MSW collection coverage;
- Encouragement of MSW reuse and recycling; and
- Promotion of environmentally sound treatment and disposal.
The government of Jordan approved its first national solid waste management strategy in 2015.

Shift from old system towards a modern and integrated one that will be based on the “Three R's”

- Reduce
- Reuse
- Recycle
## GOALS AND TARGETS AND LINK WITH SDG

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<tr>
<th>Goals</th>
<th>Targets</th>
<th>Link with SDG’s</th>
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</table>
| **Goal A – Promote waste minimisation, reuse, recycling and recovery** | • **Waste reduction targets** – Reduction of biowaste ending-up to Landfills 75% by weight by 2024 (according to 2014 amounts)  
• Preparing for re-use and recycling of MSW materials (at least paper, metal, plastic and glass) 50% by weight by 2024,  
• Recovery of packaging waste (including reuse, materials’ recovery and energy recovery) 25% by weight by 2024,  
Recycling of packaging waste 15% by weight by 2024, | • **SDG9: Industry, Innovation and Infrastructure**  
• **SDG12: Responsible Consumption and Production** |
### GOALS AND TARGETS LINK TO SDG

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<thead>
<tr>
<th>Goals</th>
<th>Targets</th>
<th>Objectives</th>
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| • Goal B – ensure the effective and efficient delivery of waste services | • Achieved Coverage of MSW street-cleaning and collection services 100% by 2019, 100% by 2024 and 100% by 2034  
• Closed open dumping and unlicensed disposal sites operate well-functioning sanitary landfills-operation permits 50% by 2019 and 100% by 2024  
• Separate waste collection system and treatment for recyclables (at least paper, metal, plastic and glass) by 2024  | • **SDG3**: Good Health and Well Being  
• **SDG11**: Sustainable Cities and Communities  
• **SDG12**: Responsible Consumption and Production |
**IMPORTANCE OF THE NMISW**

- Collect accurate data and in periodic manner.
- Important for strategic planning and setting goals and for monitoring the progress.
- Important data for decision making.
- Monitoring environmental impacts specially of landfills.
- For the private sector they need to have the data to plan the business model the more accurate the data the better.
- Monitor the targets set in the national solid waste management Strategy.

- Create times series and see the trends.

- To control pollution associated with waste disposal.
Strengthen the capacities of MoENV/Stakeholders to establish a NMIS-MSW that will support MoENV to fulfill its monitoring role, also in relation to the EU budget support requirements.

Strengthen the capacities (including equipment) of the MoENV to perform environmental controls on existing and new landfills.

Strengthen the capacities of MoENV to enhance the regulatory framework as required by NSWM strategy.
Component 1 – establishment of the NMISW

Definition of the content of the NMISW

- How can the NMISW contribute to monitoring the achievement of targets laid down in strategic documents?
- How can the NMISW contribute to monitoring the enforcement of relevant provisions of legislation?
- How can the NMISW contribute to fulfilling Jordan’s reporting (self-) obligations towards European and/or International Organizations?

• Environmental and key performance indicators

Infrastructure: building the governmental IT tool

Inter-institutional Cooperation
Big Picture – Software-Module

Reporting

Reporting and Monitoring System (RMS)

Landfill Monitoring System (LMS)

Waste Information System (WIS)

Master Data Management System (MDM)

Transaction Data (Applications, Modules)

additional functionality in the future
WASTE INFORMATION SYSTEM (WIS)

Reports
- Landfill report
- Incineration Plant report
- Transfer Station report
- Waste Generator report
- Recycler report
- Etc..
Component 2 - perform environmental controls

- Identification of landfills (adequate infrastructure in view of RTMS), identification of groundwater wells
- Support for establishing the LFMU
- Delivery of equipment (Manual and Real time monitoring)
- Draft guidelines and monitoring program and trainings
Al Ghabawi Landfill Site shall comprise
- Leachate emission monitoring in quantity and quality (electrical conductivity)
- Landfill Raw Gas Emission (quantity and quality parameters: CO$_2$, CH$_4$, NOx, SO$_2$, H$_2$S),
- Exhaust Gas Emission (quantity, quality parameters CO$_2$, CH$_4$, NOx, SO$_2$, H$_2$S, and Particulate Matter)
- Ground Water Monitoring quality parameter (electrical conductivity)

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<thead>
<tr>
<th></th>
<th>Monitoring</th>
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<th>Monitoring</th>
<th>Transfer System</th>
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<tr>
<td>Al Ghabawi</td>
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<td>Al Husainyat</td>
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INDICATORS SELECTION - REFERENCE LISTS & RATIONALE BEHIND

SEIS H2020 Indicators

EU Indicators (for budget support)

Waste Management Strategy
Monitoring of waste quantities

- Municipal waste generation
- MSW composition *
- Waste captured by the solid waste management and recycling system
- MSW recycled, recovered and disposed
- Preparing for reuse and recycling of MSW (paper, metal, plastic and glass)
- Waste quantities disposed in sanitary and non sanitary landfills
Monitoring of the national waste management system: capacity for waste collection & treatment

- Capacity for waste management in municipalities (equipment/resources)
- Coverage of MSW street-cleaning and collection services *
- Percentage of the total municipal solid waste to: MRF, thermal treatment, MBT, sanitary landfill
Monitoring of the national waste management system: capacity for waste disposal

- Capacity for waste management in landfills (equipment / resources)
- Capacities for disposing municipal solid waste in sanitary landfills
- Number of citizens served by sanitary landfill
Monitoring operation of sanitary and non-sanitary landfills:

- Area covered by lined landfills
- Area covered by unlined landfills
- Quantity of biogas treated to biogas flare systems
- Quantity of leachate that is treated to leachate treatment ponds
ENVIRONMENTAL IMPACT INDICATORS

Monitoring the impact of landfills on water, air and soil

- Quantity of methane (CH4) burnt to biogas flare system
- Area of rehabilitated and vegetated dumpsites
- Quality of groundwater
- TOC in groundwater
ENVIROMENTAL IMPACT INDICATORS

Monitoring the impact of landfills on water, air and soil

- Number of closed dumpsites*
- N. of uncontrolled dumpsites *
- Percentage of waste that goes to uncontrolled dumpsites *
- N. of uncontrolled dumpsites in coastal area *
- Quantities of waste going to uncontrolled dumpsites in coastal areas *

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NMISW

Welcome to the National Monitoring Information System for Waste!

Waste Generators
Companies that produce any amount of hazardous waste or large municipal waste quantities have to register as waste generators on this platform.
To proceed with the registration for waste generators please click on the link below.

Recycler
Any registered recycling companies in Jordan may register on this platform in order to obtain their environmental status as recycler.
To proceed with the registration for recyclers please click on the link below.

Latest News
- The latest news can contain a link to an external site, for example for linking to news on the Müllinfo homepage or a link to an uploaded file.
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Jordan waste map

https://test.umweltbundesamt.at/nmis/#/home
Welcome to the Registration as a Waste Generator in the National Monitoring and Information System for Waste.

The Registration Wizard will guide you through the process of registration.

Please keep the basic legal information (national register ID) of the company/business at hand so you can fill in the forms quickly and correctly.

The completion of the registration form normally takes about 5-10 minutes.

At the end, it will show if the registration was submitted successfully.

https://test.umweltbundesamt.at/nmis/#/mdm/registration/waste-generator
WASTE GENERATOR REGISTRATION

https://test.umweltbundesamt.at/nmis/#/mdm/registration/waste-generator
حضرة

شكرًا كبار على التسجيل في نظام معلومات الرصد الوطني للتفتيش.

قبل المتابعة بعملية التسجيل يجب احترام البريد الإلكتروني من خلال الضغط على الرابط التالي:

https://test.umweltbundesamt.at/nmis/#/mdm/registration/confirm-mail/3a6c8580-7dc3-4118-b37e-5e1fbc2b1c7c

في حال لم تكن لديك حساب نظام معلومات الرصد الوطني باستخدام هذا البريد الإلكتروني أو كان لديك أسئلة خاصة بخصوص عملية التسجيل، يرجى التواصل معنا على البريد الإلكتروني contact@nmis.jordan.gov.jo.

كل الاحترام,
فريق نظام معلومات الرصد الوطني

================================== ENGLISH VERSION ===================================

Dear

Thank you for registering in the National Monitoring Information System for Waste.

Before you can continue the registration you have to confirm your e-mail address by clicking on the following link.

https://test.umweltbundesamt.at/nmis/#/mdm/registration/confirm-mail/3a6c8580-7dc3-4118-b37e-5e1fbc2b1c7c

If you did not create an NMIS-Account by using this e-mail address or if you have general questions about the registration process, please contact us at contact@nmis.jordan.gov.jo.

Best regards,
Your NMIS team
التأكد على عملية التسجيل الأولي في نظام معلومات الرصد الوطني:

تتم تقديم المعلومات التالية للتسجيل الأولي:

التعريف:
رقم التعريف الوطني:
NIRDID-1234567890

الاسم الرمسي:
اسم الشركة
الإسم التجاري:
حروف

الشراكة التجارية الأساسية:
الرقام والعنوان:

البريد الإلكتروني:
example@email.com

**Al Ghabawi - overview**

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<th>Landfill management</th>
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<tr>
<td>Trucks today</td>
<td>2,357</td>
<td>246</td>
</tr>
<tr>
<td>Trucks 2018</td>
<td>XXXX</td>
<td>XXXX</td>
</tr>
</tbody>
</table>
Sabah Nait
Project coordinator
M: +436645311175
Sabah.nait@umweltbundesamt.at