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JSC TODAY

Directorate of Joint Service Council Ministry of Local Government Japan International Cooperation Agency

The Project of Technical Assistance in Solid Waste Management in Palestine

COMPLETION OF JERICHO LANDFILL SITE EXPANSION PROJECT

Since 2006, Jericho Joint Services Council for Planning and Development is managing solid waste services, and since 2010, the (JCspd) started seeking to secure the necessary fund to expand Jericho landfill. This project was one of the most vital priorities for Jericho JCspd since that time, the expected life of the landfill site ended and the landfill overloaded. In 2012, Japanese government decided to support Jericho landfill site expansion project and prepare the infrastructure for separate and transfer station through the grant aid funding scheme, but this project was postponed due to some difficulties. At the end of 2014, Japanese government decided again to fund this project through United Nation Development Project (UNDP/PAPP) with a generous fund amounted to 3.1 million US dollars.

The project was launched in July 2015 covering three main components, which are construction of a new cell for the municipal waste at Jericho landfill, construction of the infrastructure facility with separate and transfer station, and procurement of some vehicles and equipment for the landfill and waste collection.

The expansion process of the landfill site included:

- Construction of rental wall along Wadi Qelt.
- Preparation of a new cell (20 Acres), which included excavation work.
- Three layers of lining materials including soil, High Density Polyethylene (HDPE), and geo textile.
- A leachate collection network and collection pond.
- A system to collect the gas emitted from the organic decomposition. .
- Location fencing.
- Construction of electrical works including solar energy lighting panels.

The project was finished in January 2017, with a final ceremony held in the project site on February 8th, 2017.





Sides of the expansion of Jericho landfill

Eng. Abdel-Jabbar Abu Halaweh
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HOW TO MITIGATE ODOR PROBLEM IN LANDFILL SITES?

The difference between the random dumpsite and the sanitary landfill is the implementation of soil cover. The Random dumpsite causes various nuisance issues such as odor, vermin/vector, birds, waste dispersion, visual appearance and fire. All of these issues occur at the surface. The implementation of the cover seems to be very simple measure but it improves the situation drastically. In many developing countries, this measure is sometimes disregarded or given up due to the financial constraints even if the site's

structure is designed and constructed as the state of art sanitary landfill. Thus, they are still facing such nuisance issues. Currently, Zahret Al-Finjan landfill is facing the same issues, because of the entrance of a triple quantity of the daily amount of waste delivered to the site compared to the planned quantity, since they are facing operation difficulties, especially the implementation of the cover. So the first necessary action to mitigate the nuisance is recognized as the implementation of the soil cover. But there is no sufficient amount of the high quality soil cover. This condition is not the responsibility of the landfill administration, and the generators should consider the required procedures to decrease waste amounts.

Here in Palestine, surface soil layer is quite thin and there is a limestone immediately below the soil layer. Consequently, the suggested type of soil cover is the limestone. However, it is not suitable as a cover material, but it was used to mitigate the odor issue. The emission of the odor from the waste layer is a natural consequence. Any landfill that accepts raw Municipal Solid Waste (MSW) has these negative effects. The odor is emitted directly from the waste or as a result of organic matter decomposition. If the appropriate cover soil is used, the odor will be absorbed through passing from the soil. This effect is mainly derived by the activity of microorganisms. Therefore, porous and fine soil material which has high moisture holding capacity is the suitable soil cover. And such function cannot be expected through using crashed limestone. Accordingly, the soil cover is sometimes called as "bio-filter", especially the compost and yard wastes. If these materials can be used in Zahret Al-Finjan landfill with sufficient amount, probably the condition will be significantly improved, but the financial support is necessary.

In conclusion, when I visit the landfill site in Palestine, I remember the phrase "End of Pipe". Finally, "everything" is coming to the landfill. However, the landfill is not the final destination for all substances. It is a kind of a reactor and we need to choose what should be sent to the landfill. Essentially, waste flow should be considered carefully. And away from that, it is difficult to find a better solution.



Solid waste without the cover of soil in the landfill

Dr. Yasumasa Tojo
Expert in Environmental Auditing of Landfill Site
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HOME COMPOSTING SEMINAR

On February 15th, 2017, the Department of Joint Service Councils (DJSCs) in the Ministry of Local Government (MoLG) in cooperation with Japan International Cooperation Agency (JICA) had organized one day seminar on the home composting, in the presence of representatives from Joint Service Councils (JSCs) for Solid Waste Management (SWM) and MoLG branches, in addition to the Local Expert Team (LET) and the Japanese Expert Team (JET).

The seminar was opened with a speech from the Deputy Minister (Mr. Mohammad Hassan Jabareen), who emphasized on the importance of waste composting from health and environmental aspects, as well as its significant role in reducing the waste amount transferred to the Landfill, where the Palestinians are suffering from the availability of suitable lands to construct such landfill. The deputy emphasized on the importance of the cooperation between the Local Governmental Units (LGUs) and the JSCs with the Ministry toward disseminating the culture of waste separation and composting.

The seminar included many presentations, which focused on the following issues:

1. The results of the first phase of home composting pilot projects, which took place in Hebron and Jericho Governorates during summer and winter seasons of 2016.

2. The home composting manual.
3. The implemented composting pilot projects in Bethlehem, Ramallah and Tulkarem Governorates.
4. Introducing the audience with the recently constructed composting plant at Al-Minya Landfill.

Several related issues were discussed during the seminar, such as the importance of waste composting, the factors affecting the composting process, the type of composters, the importance of intensifying public awareness on the waste separation and recycling of the organic matter, MoLG's role in supporting and encouraging the JSCs and LGUs on the technical and financial levels in home composting process.



Opening the home composting seminar by the Deputy Minister, Mr. Mohammed Hassan Jabareen

The seminar was closed with a speech from Mr. Suleiman Abu Muferreh (Acting General Director - DJSCs), in which he encouraged the JSCs to support and promote citizens to continue home composting for waste reduction as one of the goals that the National Strategy of SWM addressed.

The concluded recommendations were as follows:

1. The cooperation of the JSCs and LGUs with the DJSCs in MoLG is very necessary.
2. Public Awareness is essential, especially in the environmental clubs in schools.
3. Applying the 4Rs policy: reduce, recycle, reuse and regenerate.
4. There is a need for a national policy to construct factories specializing in waste reusing and recycling.
5. The need to promote the partnership between the public and the private sectors in SWM.
6. The agricultural bodies should support composting projects and make some experiments before starting with the households.
7. Providing the citizens with some incentives such as reducing the waste fees, which will encourage them to continue composting process.
8. Laws and regulations are needed to create an environment-friendly culture and have an integrated management for solid waste sector.



During the home composting seminar

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A NEW PROGRAM FOR ESTABLISHING A SYSTEM OF MEDICAL WASTE MANAGEMENT IN GAZA STRIP

A lack of capacity for conducting proper treatment of wastes generated at the medical institutions is posing a significant threat to people in Gaza Strip. Although the separate collection in very limited number of hospitals has been conducted so far, it has not properly established as a system to manage the infectious waste from generation to final disposal. JICA, together with the agencies of the Palestinian Authority, are going to launch "A Program for establishing a system of Medical Waste Management in Gaza", which aims to contribute for developing and implementing a mechanism for medical waste management in Gaza

Strip, in collaboration with Ministry of Health (MoH), Ministry of Local Government (MoLG), Environment Quality Authority (EQA), Joint Service Councils for Solid Waste Management in Khan Yunis, Rafah and Middle area (JSC-KRM), and United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). In this Program, two technical cooperation projects will be implemented as pilot practices:

1. Intra-hospital management
2. Off-site management of medical waste, as below:

(1) Intra-hospital management	Pilot Project for Promotion of Medical Waste Intra-hospital Management in the Southern Gaza Strip; establishing a model of intra-hospital management (three category of separate collection) at small clinics in the Southern area of Gaza Strip and two departments of Shifa hospital, specifically, laboratory department and kidney department (designated medical institution), and MoH.
(2) Off-site management	Pilot Project for Medical Waste Off-site Management in the Southern Gaza Strip; establishing a model of off-site management of medical waste with a JSC providing solid waste service in the Southern area through pilot activities for UNRWA, clinics and the small clinics and two departments of Shifa hospital, specifically, laboratory department and kidney department (designated medical institution), and MoH.

The Program is expected to start soon in 2017, under the cooperation of all stakeholders through information sharing and learning among them.



Landfill operation in Gaza Landfill

Most medical wastes generated in Gaza Strip are not properly treated and dumped in landfill together with the municipal solid waste, which threatens citizen's health

Dr. Mitsuo Yoshida
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DEEP CONDOLENCE AND NO ACCIDENT OPERATION

In the mid of March, a sanitation worker passed away due to sudden car accident in one of the JSCs. It happened when he and his colleague were heading to the transfer station after collecting waste. The worker was just 50 years old, and we cannot help regret his untimely death. And before this accident, another accident happened at the end of February in another JSC. A sanitation worker who was engaged in collecting waste caught his fingers in the compactor collection vehicle, which resulted in losing his hand.

Both of the accidents were shocking and tragic, and we do not only feel sorry about them, but also have to take seriously the lesson learned from those accidents. "Are the vehicles maintained regularly?", "Are the vehicles covered by the insurance?, (Are the insurances valid?) ", and "Do the workers conduct safety checks? Do workers get enough training" Those kinds of self-check questions sound simple but they are very important to prevent any possible accidents. Please take this opportunity to review the operations of solid waste management in terms of safety. In addition to that, the project recommends that not only accidents but also these sobering experiences are

necessary to be shared among JSCs to avoid future accidents. Let us think about what we can do for "no accident operation".



Vehicle Repair Inspection by the project. It's essential to conduct regular car maintenance

(Picture is not related to the accidents)

Ms. Shoko Nakatomi
Project Coordinator / SWM Project – Phase 2
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THE WASTE COLLECTION EXPERIMENT IN TUBAS AND NABLUS

A waste collection experiment was implemented in Tubas and Nablus areas; the first phase of the experiment started in November 2016 and finished in February 2017. The aim of the experiment is to compare between different waste collection systems in terms of time efficiency, cleanness of landscape and social acceptance. The experiment studied and compared between two of the waste collection systems; the first one is House to House (HtH) collection system using 120 Liter bins, where each bin is owned by one household. The second collection system is Fixed Time Fixed Place (FTFP) collection system using 240 Liter bins, where each bin is shared with several households (2-3 households).

The experiment was implemented in cooperation with Tubas JSC and Nablus JSC, where each JSC got 60 bins of (120 Liter bins) and 15 bins of (240 Liter bins) as a subsidy from JICA. And they were responsible to distribute the bins for suitable collection routes. Tubas JSC distributed the bins to Tubas City, Tammun Village and Aqqaba Village, and Nablus JSC distributed the bins to Jurish Village and Qariut Village. Before starting the experiment, JICA's team in cooperation with the JSCs conducted community meetings in the targeted areas to enlighten the citizens about the importance and the aims of the experiment. Then the JSCs collected field data about the required collection time and the volume of the collected waste in each route. Through the experiment, several field visits and meetings with targeted LGUs and beneficiaries were conducted.



The community meeting at Jurish Village

The collected data were analyzed; the results showed that the used FTFP collection system is better than the used HtH collection system in terms of time efficiency. On the other hand, most of the people prefer to have their own container not the shared one, which means that the HtH collection system is socially more accepted. In terms of cleanness of landscape, no significant difference was found between the two studied collection systems.

In Tubas area, additional benefits were found for using the 240 Liter bins and the 120 Liter bins, which are:

1. Achieving the community participation in the containers' cost. The people were willing to pay part of the containers' cost, where each beneficiary contributed in more than 30% of the container's price in order to get the container.
2. The social problems reduced between people due to the elimination of using the big containers (1.1 cubic meters).
3. The collection frequency reduced from 3 to 2 times/week in some of the collection routes,

which reduced the collection cost.

4. Using the 120 Liter bins is enhancing the general view of the area where most of the people put the bins inside their lands, and they put them out to the street just before the collection time.



A sample of the households putting 120 Liter bin inside their lands in Tammun Village

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THE THIRD SWM TRAINING FOR JSCS STAFF

For the third year respectively, JSCs training was conducted in cooperation with the DJSCs and JICA for five days during February and March 2017 in Ramallah.

The training program has targeted all JSCs for SWM in West Bank through the participation of members from the board of directors, executive directors and a number of the JSCs' employees, in which the training materials were presented by the LET, JET and members from different departments of MoLG.

The training program aims to build the institutional capacity of the JSCs including environmental, administrative, and financial issues through covering several aspects, such as SWM, project management, public awareness and other financial and administrative issues. The details of the subjects addressed in the training are as follows:

1. An overview about the laws and regulations related to SWM including the environmental law, SWM bylaw, and JSCs bylaw. In addition to the details of the medical bylaw, this was explained by MoH.
2. An overview about the history of Japan experience in developing the SWM field in order to take the advantage and apply this experience in Palestine.
3. In the second day, several administrative subjects were discussed in order to develop the JSCs' institutional capacity, such as the administrative issues including the administrative and human resource management, monitoring process and working procedures.
4. Detailed explanation about the tariff, cost recovery and fees collection as well as an overview about the SWM National Strategy 2017- 2022.
5. The fundamentals of the strategic planning related to the JSCs' strategic plan and the importance of this issue. In additional to the detailed description about the essential role of basic, annual, financial and development plans for each JSC. Also clarifying the preparation mechanisms of these plans, as well as presenting Nablus JSC's plans as a case study.
6. The third day covered the financial management aspects, which included a lecture held by the budgeting department in MoLG about the preparation of the annual budget and financial report, as well as the financial analysis and planning.
7. A lecture by the projects department in MoLG about the SWM project management.
8. A presentation about the amended procurement law-2016 by the procurement department in MoLG.
9. A lecture about the tools which help the JSCs to succeed in planning of public awareness campaigns in addition to the challenges in this field and how to overcome the obstacles.
10. The fourth day was addressed to the technical issues to help the technical team in the JSCs, which included a detailed description about the importance of the 4Rs principle and separation from the source.
11. A detailed lecture about the vehicles management including the importance of the monitoring and tracking system in the JSCs.
12. The final day included an important lecture concerning the transfer station management and the guidelines to manage the transfer stations through highlighting the experience of the Higher JSC of Hebron and Bethlehem in

managing transfer stations belonging to Al-Minya in the southern area.

13. A presentation about the importance of following health and safety standards in SWM field.



A group photo during the final day of the 3rd project training

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THE IMPORTANCE OF WASTE REDUCTION AND PUBLIC AWARENESS

Aiming at achieving the required level of awareness in solid waste sector on different levels and accessing different tracks, especially promoting for the 4Rs policies which are applied by different international, national and local governments, different agencies and communities all over the world since several years even they vary in level and efficiency, contribution to the global community efforts in maintaining the environment, health and economic in the entire world. We in Palestine are required to investigate and accordingly draw our road map in the right direction to reduce waste generation.

Waste is massively increasing, especially solid waste due to many reasons; among them are the natural increase in the population size, modern life style, the advanced industries such as automobiles, home appliances, telecommunications or even the daily consumable industries, increase of individual and family demand, purchasing and consumption patterns and behaviors.

Waste generation is a normal result of the humans' consumption and behaviors patterns. Therefore, the integration of responsibility between all stakeholders and raising the awareness of individuals, families and organizations are the major elements in waste generation and it is our own responsibility.

If we quickly review the situation, we will find that some behaviors became waste generation habits without our notice. So, we generate wastes more than we know and we can reduce the waste volume by paying more attention for all of our daily decisions and actions.

Waste reduction is related to the generators knowledge and awareness in solid waste issues, level of consequences resulted from awareness and behaviors. So it starts from the beginning and from our decisions and behaviors by the prevention of waste generation. For example, when we do our purchases we need to decide what are the exact quantities to purchase; the quantities we expect to consume and use, since the remains will be wasted. On the other hand, we should reconsider the direct or indirect possibilities to reuse the abandoned remains before the disposal. Another example when we go to the market, shall we carry with us reusable bags instead of bringing home tens of plastic or nylon bags, which for sure will be wasted by the end of the day and found in garbage containers.

Aiming at achieving some progress in this regard we need to underline some of the main determents for waste reduction, where a required high level of awareness is very important for all the key players in the solid waste sectors, starting from generators, service providers (municipalities and JSCs), NGOs, private sector and the related national ministries and authorities:

1. Upgrading the legal framework related to solid waste sector.
2. Enforcement of laws and regulations in three dimensions:
   a. Responsibilities of generators.
   b. Motivation for compliance.
   c. Penalties for violating.
3. Change the behaviors in the field of waste management and waste generation starting from:
   a. Decisions of individuals and households and consumption patterns, which lead to waste generation.
   b. The community and its ability to monitor and contribute to waste management performance.
   c. The awareness level of producers, dealers and wholesalers and the limitations on the different types of products and its compliance with certain specifications, international trade and environmental limitations.

d. The awareness level of the decisions and policies makers, which can direct the stakeholders to focus on environment-friendly consumption and the expected amount of generated waste.

4. Waste management performance at organizational level (LGU or JSC) is another critical factor and it needs to be elevated and redirected toward the huge opportunities that could be derived from the existing and potential challenges in the solid waste sector.

Also one of the important axes that we need to highlight and target is raising the level of awareness about the impact and importance of waste reduction on economic, environmental and social aspects by all related parties in waste generation, (households, local communities, private sector, industries, commercial enterprises, dealers, retailers, governmental organizations etc...). All those players need to be educated about the problems of waste, service management and provision expenses, health, environmental, economic and social effects. So they always have to remember and consider that while making decisions and behaving at production, distribution or consumption phases, definitely this again need to go in compliance with upgrading laws and regulations, economic incentives and so on.

Other key players need to be educated about their integrated role and the importance of developing and implementing policies and offer whether physical or moral incentives for producers, such as the rewards and promotion for good brand names or good practices which take waste reduction in consideration or those who adopt the environmental production policies.

On the commercial level, there is a need to educate wholesalers and retailers to favor the less waste generation companies or products and direct them toward the products which consider waste reduction by providing incentives or force restrictions in order to direct these parties to a certain product that generates less waste. The tax regulations may be one of these procedures, which directly affects their decisions.

Last but not least, seeking to waste reduction and recycling and raising the awareness in solid waste issues, MoLG just started promoting the Local Economic Development policies, especially in solid waste sector, where the investment in this sector and turning waste to energy will reduce the disposed waste into the sanitary landfills. On the other hand, in cooperation with JICA and by taking the advantage of the Japanese experience, we are implementing some awareness activities in waste reduction, such as the organic waste composting as a pilot stage, increasing the JSCs awareness about the good governance and performance on the organizational level. Besides, a public awareness program is now under preparation. This program will target the public audience through local TV and Radio stations to contribute in raising the awareness level in solid waste issues and especially the importance of waste reduction.

Mr. Suleiman Abu Muferreh
Project Manager (PM)
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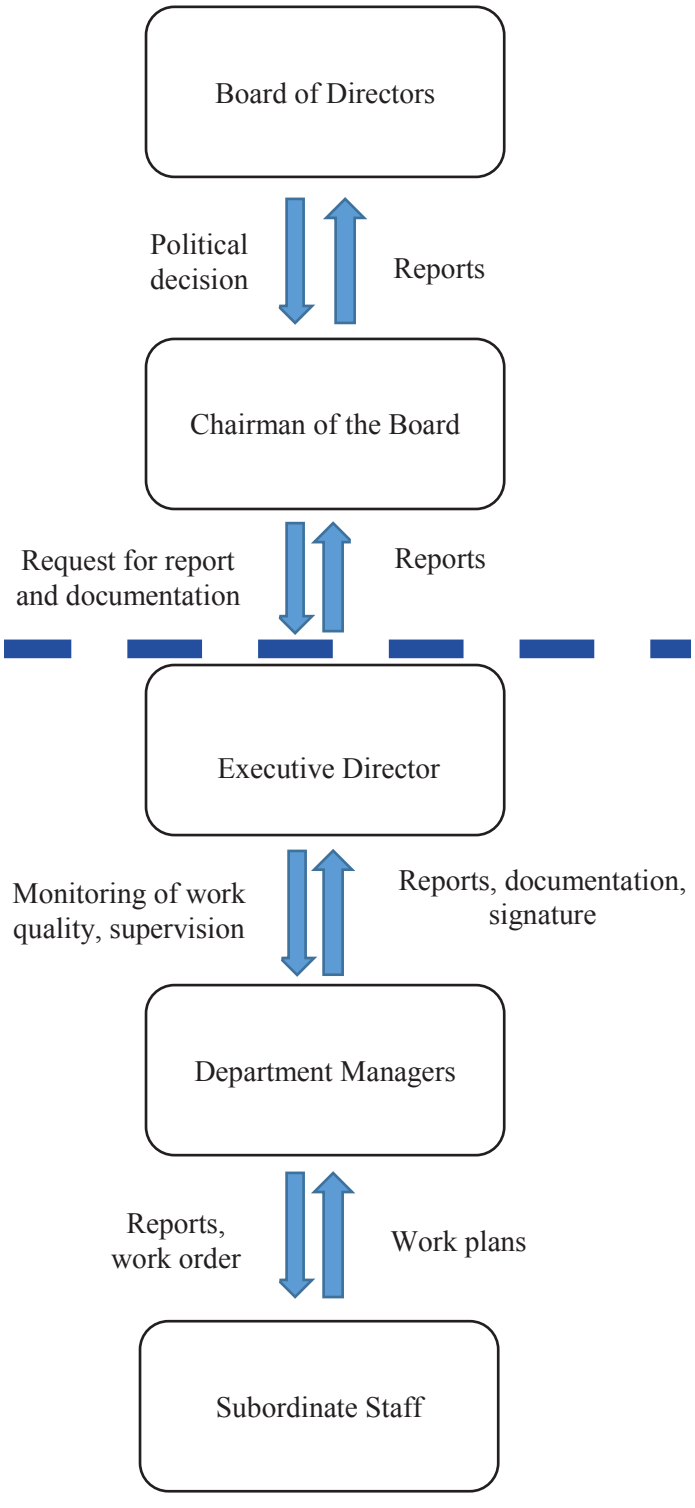
THE IMPORTANCE OF STRENGTHENING THE RELATIONSHIP BETWEEN THE BOARD OF DIRECTORS AND THE EXECUTIVE DIRECTOR

Since the establishment of MoLG, the Ministry has focused on the joint works. It has formed the regional planning committees as a framework for the joint work of several LGUs. However, these planning committees have no legal basis within the LGUs bylaw. Then by a decision from MoLG's Minister, the regional planning committees were transferred to JSCs, which required the creation of the DJSCs within MoLG, where the institutional building of the JSCs was one of the top priorities for the department. The JSCs bylaw No. (1) for 2006 has been established and then it has been reviewed after the application for several years and amended according to the recommendations of the competent committees. Afterwards, the JSCs bylaw No. (1) for 2016 was issued.

In this short article, I will address the relationship between the executive director and the board of directors as stipulated in the JSCs bylaw.

The bylaw clearly defines the duties and responsibilities of the two parties: the executive director and the board of directors represented by the head of the board. The bylaw defines the role of the head of the board by a general supervision of all the work of the JSC and the setting of public policies. While the bylaw defines the role of the executive director by a direct daily supervision of the work in the JSC including a daily follow-up with the staff and employees of the JSC and the preparation of work programs and the preparation of plans and so on, this requires the development of performance and improving the service. Despite clarifying the tasks, sometimes the overlapping between roles and tasks affects the work negatively.

The relationship between the two parties is integrated but the tasks between them should be separated; while the board of directors is the policy maker of the JSC, the executive director is implementing this policy. The attached form clarifies this relationship and determines the role of each party. And in the case of the compliance with the JSCs bylaw for 2016, the performance of the JSC and the service will be improved.



The good relationship between the executive director and the board of directors is the foundation of the proper institutional work for the success of the JSC. The tasks should not be overlapped, especially by the board of directors that should not interfere with the daily activities of the JSC and leaving these tasks to the executive director. In contrast, the executive director must submit regular reports, so the board of directors can make decisions and formulate appropriate policies to improve the performance of the JSCs.



One of the meetings in N+NW Jerusalem JSC



A group photo for the Executive Director and the workers in Tubas JSC

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For more information and comments

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JSC Today

MESSAGES FROM PROJECT MEMBERS AND EXPERTS

Hello, everyone! My name is Shoko Nakatomi. I newly joined the project as a project coordinator at the end of January 2017. Before working for this project, I had worked for the Representative Office of Japan (ROJ) in Ramallah for two years as an aid coordinator and engaged in various projects in partnership with Palestinian ministries and international organizations.

Palestine is a very attractive place for me. One of the fascinating things in Palestine is the people. What I like about Palestinian people is that they always take care and support each other, and the value on the relationship with their family, friends and community. This is the virtue of Palestine and it should be kept even though the society is developing. As for the project, since joining the project, I have faced many challenging problems and situations; however, I am enjoying new experiences and learning a lot every single day. I am excited to work and go forward with my team and counterparts. As you know, this year is the final year of the project, which means we need to achieve the outcomes. It is easier said than done, but we are a team and we support each other to attain the goals, and I believe that we are doing all our best to make our project successful. Inshallah.



Ms. Shoko Nakatomi
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We have been working for MoLG - DJSCs "as per the regulations" in supervising the solid waste sector managed by JSCs and municipalities on the regional and local level for years, regardless of the capital investment in this field, especially the sanitary landfills and provision of compactors and equipments. But the huge generated quantities still creating challenges and exhausting burden for the institutions. The continuation in generating and dumping the solid waste is not the solution; especially that we are facing a serious threat of financial sustainability, environmental and health problems. Therefore, today it is a must to boldly underline and highlight this problem and the necessity for promoting the ideas about a potential investment in the remaining materials resulting from human activities as a substance but not waste, which can be reused or recycled. It is important to educate all the related parties including the management level for approaching new tracks, new creative and alternative thoughts and solutions for managing solid waste sector in Palestine, where we can together as "policy makers and supervising ministries, the responsible institutions of SWM, and generators" upgrade our mentality toward the concept of turning challenges into opportunities, where JSCs, municipalities and private sector can invest and achieve economical, environmental and social benefits. It is the time to ring the bill; we are approaching into the red zone, let us reduce, reuse, recycle the solid waste in Palestine.



Mr. Suleiman Abu Muferreh
Project Manager (PM)
Acting General Director - DJSCs - MoLG

In Palestine, we face a great challenge in solid waste sector, where the household and industrial waste is increasing steadily. In this context, different JSCs were established on the Governorate level, in addition to establishing Al-Minya, Zahret Al-Finjan and planned Rammoun sanitary landfills. So the waste is collected and transferred through the JSCs in each governorate to the landfills for the dumping process. Afterwards, the preparation started for waste recycling process and reusing the possible amounts in order to reduce the transferred amount of waste. Moreover, The visit to Tokyo that was organized by JICA had a great impact in the guidance of solving this problem as much as possible, in which we were introduced with the Japanese Experience in eliminating these challenges and turning them into investment opportunities on the fertilizers, gas or electricity levels. We were also introduced to the problem of construction and demolition waste (cement, iron and aluminum). While in Palestine, this process is still carried out randomly without benefiting from what was mentioned before.

What I need to confirm here is the importance of reflecting the Japanese experience on the basics of the proper disposal of this waste, where there are clear policies on the official level to treat the waste by the investment in this sector through generation of electricity, gas extraction and recycling tires. Thus, we count on the Japanese Government support in such strategies and in empowering the LGUs for a right management for this important sector and raising the capacities of LGUs and JSCs in SWM. In my personal and official capacities, I convey my thanks to the Japanese Government and people for their hospitality and accommodation in Japan throughout the duration of the training.



Mr. khaled Eshtayeh
General Director
MoLG Branch in Nablus