

# **Establishment of Strategic Management Plan and Awareness & Change Management Plans for the Solid Waste Management – The Case Study of Al Fayhaa Cities in North Lebanon**

C. Tsompanidis<sup>1</sup>, T. Lolos<sup>1</sup>, E. Ieremiadi<sup>1</sup>, I. Apostolova<sup>1</sup>, K. Oikonomou<sup>1</sup>, Anthony Aoun<sup>2</sup>

<sup>1</sup>ENVIROPLAN S.A., Perikleous 23 Gerakas, Athens, 15344, Greece

<sup>2</sup>Dar Al Handasah Nazih Taleb & Partners, Bachir Kassar Street, Verdun Sector, Beirut, Lebanon

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Presenting author email: [ct@enviroplan.gr](mailto:ct@enviroplan.gr)

The objective of this paper is to present the activities of a project financed by United Nations Development Programme (UNDP) which has been undertaken in Urban Community Al Fayhaa (UCF) composed of the cities of Tripoli, El-Mina, El Baddawi and Al Qalamoun in Northern Lebanon aimed at establishing of an integrated solid waste management system. Specifically, the Project was conceived to build the capacity to the local authorities represented by UCF and in the same time to divert the maximum volume of waste possible from the landfill/dumpsite taking into consideration the social, environmental, and economic limitations of all stakeholders involved. This Project was assigned by UNDP to the consortium DAR AL HANDASAH NAZIH TALEB & PARTNERS AND ENVIROPLAN S.A.

The Urban community Al Fayhaa (UCF) is located in the North Governorate of Lebanon with an estimated population of around 500,000 Lebanese Residents and more than 125,000 Refugees between Syrian (75,000) and Palestinians (50,000). Today, the Urban community of Al Fayhaa (UCF) of cities generates more than 450 tons of MSW daily as per the data extracted from Tripoli's dump weighbridge. Like all major cities and regions in Lebanon, the UCF suffers from a very challenging waste management problem. Due to improper handling of MSW and lack of public awareness, all types of wastes were being mixed, meaning they were neither segregated at source nor post treated. As a result, all generated waste had been dumped in Tripoli's dump.

The project results were (i) the Strategic Management Plans including Municipal Solid Waste (MSW) & Commercial Waste Collection Plan and Feasibility Study, Treatment & Disposal Plan for each type of collected MSW and Feasibility Study and Sweeping and Street Cleaning Plan and Feasibility Study and (ii) the Awareness & Change Management Plans (Program). Strategic Management Plan is key for UCF because until now on a national level, there is no consensus on the best treatment and disposal strategies for solid waste as well as proper collection and transportation of all generated municipal waste in Al Fayhaa cities. Moreover, Awareness and Change Management Plans will serve a platform for education, support, awareness and capacity building for all stakeholders in SWM.

The project has identified, through measurements, the MSW composition in different cities of Al Fayhaa, generation rates, population growth and most suitable collection methods. It has also considered different treatment options for several types of wastes and has suggested fees for each plant based of Feasibility study.

During the execution of the project, two basic components have been implemented in which different activities have been incorporated. The first component has included the Strategic Waste Management Plan with the activities of Preliminary phase and data sources collection, Review and analysis of the existing documentation, Field assessment in all project areas, Preparation of Strategic Waste Management Plan (SWMP). The second component has included the Awareness and Change Management Plans with the activities of Public Awareness & Education short videos on, Eight different posters designed on A2 & A3 corresponding to the first 8 videos mentioned in Sub-task 1, a handbook for reduction, reuse, and sorting at source (booklet size) which explains how to sort each type of waste in different scenarios and locations and an Awareness workshops in pilot projects zone and survey results which reflect the willingness and readiness of residents of Al Fayhaa to switch to reduction, reuse, and sorting at source in different regions and zones in UCF.