

# Waste Prevention Project of United Association of Solid Waste Management in Crete (ESDAK)

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The 2011-2014 Waste Prevention Program of United Association of Solid Waste Management in Crete (ESDAK) was mostly organized according to the LIFE Project «Development and Demonstration of a Waste Prevention Support Tool for Local Authorities – WASP Tool», (LIFE10 ENV/GR/000622) which is implemented by the Harokopio University in collaboration with the United Association of Solid Waste Management in Crete (ESDAK), the Inter-Municipality Company for Solid Waste Management (DEDISA), the Environmental Planning, Engineering & Management S.A. (EPEM), the Environmental Technology Ltd (ENVITECH), and the Municipality of Paralimni (MoP) during 2011-2014.

The overall objective of the project was to investigate, demonstrate and optimise the waste prevention potential at the Local Authority level, in the Mediterranean area, in the different geographic and waste policy context of Greece and Cyprus. The Waste Prevention Decision Support Tool (WASP Tool), was implemented in case of the participant ESDAK, Local Waste Management Authority, in the Prefectures of Iraklion, Rethymno and Lassithi, Crete, Greece.

For the achievement of WASP Tool objectives by the partners, the basic following actions were foreseen by ESDAK: a) Home Composting, b) Reduction of the plastic bag use, c) Prevention of textile wastes production, d) Reduction of food wastes, and e) Decrease of office wastes.

**a) Home Composting:** More than 170 home composting bins were distributed in an equivalent number of households in the general area of Iraklion, as part of the ESDAK contribution in the project. The main criterion for selecting the participating households was their interest and willingness to be involved (in a volunteer basis) as well as the fact that these are detached houses with garden. In 100 of these families additional tools were provided together with a detailed questionnaire and diary for recording the volume and characteristics of the produced wastes. This was considered as a the main group of the project, supported with also a intense network of information relative to home composting process as well as significant support by a number of volunteers. The remaining 70 households were considered as the “blank” group, in order to draw conclusions and make comparisons. It’s estimated, that more than 12,000 kg of food wastes (of vegetable origin), were composted between June 2013 and September 2014, in these 170 households.

**b) Reducing the plastic bag use:** Aim of the action was to reduce the use of common plastic bags in the super markets, enhancing the use of reusable bags. In 2010, an estimated 98,6 billion plastic carrier bags were placed on the EU Market (European Commission, 2013) imposing a continue threat to the environment. To replace the disposable plastic bags, a non-woven folding bag for multiple uses was developed, bearing a relevant barcode. By scanning the barcode in the cashier point, the supermarket could record the frequency of bags appearance. The two partner super markets chains, Chalkiadakis (member of the SPAR group) and Festos (local cooperating supermarkets) agreed to provide 1 % discount on the amount of purchases, as a motive to encourage the adoption of such an environmentally friendly behaviour, every time a citizen uses the reusable bag. More than 15,000 bags were distributed in various events. Between March 2014 and October 2014 more than 5,558 hits were recorded. It is estimated that more than 10,000 plastic bags were replaced by this way and a total 1,650 € saving for the consumers was also recorded.

**c) Preventing textile wastes generation:** ESDAK in cooperation with the Municipality of Iraklion and RECYCOM, a private company specialized in textile collection and recycling, established a clothes and footwear recover and recycling system since February 2014. 101 red bins were placed in the city, more than 30 of them outside schools, higher education institutes and supermarkets aiming to extend the life-cycle of the textile products. An information campaign was implemented by ESDAK, informing the public about this prevention project and the importance of participating. Each bin, colored bright red, has a 100 kg capacity and is emptied each 15 days. By the end of December 2014, 32,700 kg were collected and sorted. Clothes, shoes and bags, slightly used which could be resold weighted about 2,250 kg. Another 7,000 kg were in worse condition but still salable, where 9,200 kg could be recycled for other purposes as fibers production for insulation materials. Finally 10,100 kg were toys which could be reused / resold and 4,150 kg were residues that were disposed to sanitary landfill. All profit from reusable items that could be

resold were returned to the Municipality of Iraklion in kind, mostly for supporting the low income families. Even though the toys are not expected to be collected in this collecting system, about 31 % of the recovered items fall within that category.

**d) Preventing food wastes production:** Aim of the action was to reduce the amount of food wastes produced in a family on a daily basis, mainly due to ignorance and fear regarding the life expectancy of a product. Main action was the design and implementation of a compact one-day seminar, in order to inform large numbers of people how the expiry date really works and how certain food categories should be stored in an effective way. It also included a long list of recipes that would allow the utilization of food leftovers into new and nutritious meals. From the 60 persons, who have attended the first two seminars, information has been gathered about the subjects of interest that should be discussed in order to achieve the goal of food waste prevention. As follow up of these actions a third seminar took place in the 24th of November 2014 in the framework of the European Week for Waste Prevention.

**e) Decreasing office wastes:** It includes all the various actions imposed from ESDAK to its daily operation in aim to reduce the amount of wastes, mainly recyclables that are produced by the employees during office hours. The efficiency of the efforts, ranging from reuse printing paper to replacing plastic cups for coffee and water with multiple use porcelain ones, is well recorded.