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USAID/Lebanon Oil Spill Response

USAID/Lebanon initiated oil spill clean up activities from October 1, to December 8, 2006 in the area stretching from Byblos to Enfeh including preliminary clean up work in the area of Tabarja. This work was conducted in collaboration with and based on the recommendation of the Ministry of Environment within the framework of a Memorandum of Understanding.

USAID provided \$5 million and accomplished three objectives in the oil spill cleanup activity.

1) Provide initial cleanup

USAID contracted with Seacor Environmental Services (SES), a US firm specializing in oil spill work. The SES methodology used for the oil spill cleanup is essentially the world standard used for oil spill cleanup work. Two types of cleanup work were identified:

- a) Removal of oil contaminated debris and material from the selected coastline – SES collected a large amount of oil contaminated waste that were placed in over 34,000 large plastic garbage bags stockpiled in areas away from the shoreline.

- b) Cleaning of the coastline - The degree of clean up was based on priorities and criteria developed by the Ministry of Environment:
First priority coastlines are categorized as areas of economic importance where there is high usage and direct human contact with the oil, environmentally sensitive areas and protected areas, and culturally and historically important sites. Byblos was categorized as a first priority area (see attached pictures) and was cleaned to high standard with little evidence of the oil spill remaining. Another first priority area, Byblos Gravel beach was cleaned to a level higher than before the oil spill.

Second priority coastlines are defined as areas with difficult access and/or to be of medium level of usage such as industrial areas. Amchit Petrogaz and Heloue were categorized as second priority sites (see attached pictures). Bulk oil and oil contaminated debris were removed from these areas and the remaining accumulations of oil in the rocky areas were left for natural cleaning by high energy surf, a practice that is a confirmed standard in the oil spill industry and highly recommended by oil spill experts. **A common misconception is that SES did not fully clean areas along the coastline which have been left to be cleaned by waves. The waves slowly break the tar down into tiny particles which are too small to re-pollute other**

areas and can be easily consumed by oceanic micro-organisms. It is USAID intention to survey these areas in the spring following natural winter surf washing and assess if phase II cleanup work is necessary. **A misconception is that oil stained rocks can be cleaned to where no staining exists which is not practical due to the porous nature of rocks.** Over time however, the staining will decrease naturally.

It is worth noting that the oil contaminating the coastline had the consistency of a thick tar clinging tenaciously to debris, rocks, and sand, as most of the lighter petroleum fractions of the oil spill had evaporated off. This tar is very thick and difficult to remove and it is highly unlikely that it can be separated from the coastline and remobilize to pollute other areas. **A misconception is that this material can leave one contaminated site and re-pollute another.**

2) Provide financial stimulation to the local economy affected by the oil spill.
USAID oil spill activity succeeded in improving the touristic and economic opportunities in the affected areas. SES subcontracted with many local Lebanese firms for labor, equipment, and support services, infusing over \$3.5 million directly into the local economy. SES employed more than 220 laborers/fishermen whose businesses have been affected by the oil spill, and rented fishing boats, skippers, heavy equipment and equipment operators.

3) Train a Lebanese work force to be able to effectively respond to future oil spills.
SES trained a team of over 220 Lebanese workers in oil spill technology and methods. In addition to collection of oil contaminated debris and cleaning the coastline by pressure washing, the SES team cleaned and repainted over 100 fishing boats. Excess oil spill supplies from the cleanup operation have been donated to Lebanon and are ready to be used if another oil spill occurs.

4) Provide disposal solutions to the oil contaminated waste.
The oil spill activity generated more than 34,000 bags of oil contaminated waste from 12 sites in the targeted area, where bulk of oil including pooled or mobile oil was removed.
USAID oil spill clean up activity did not include for disposal of the oil contaminated waste, which was a national responsibility of the MOE. As MOE was unable to designate a disposal site, due to Minister's resignation, USAID was the only oil spill response donor to remove the bags to an interim storage site in January 2007, and again to a final site designated by MOE in March 2007. **USAID continues to seek a solution for cleaning and/or disposal of oil contaminated sand and rocks generated by USAID and other donors.**

USAID would like to assure all that it is still committed to additional interventions in oil spill clean up in the upcoming Spring Season, and is coordinating with the Ministry of Environment for that purpose.