
REPORT OF THE THEMATIC EXPERT ON THE COURSE ENTITLED
“Desalination and the Environment”
held in Tel Aviv, Israel on 22-25 February, 2011

Background

The course is evaluated herein with regards to the macro objectives, deliverables, and impacts.

Though desalination discharges constitute only a small component of the 80% of the overall pollution of the Mediterranean Sea attributed to sources that include industrial pollution, it is nevertheless a form of industrial pollution which, if (and only if) it cannot be avoided, can and should be mitigated. History has shown that only recently this industry has started to give the environment its due share, not because of disregard but rather due to lack of information and knowledge among decision makers and regulators, and even among the industrialists themselves. The course was one of the capacity building measures taken to spread knowledge and raise awareness among stakeholders for the need to develop relevant environmental laws and regulations. This course was intended to be given on a national scale as it was in response to the capacity building needs identified by Israel earlier in the H2029 project. The CB/MEP felt that common denominators among neighbouring countries do indeed exist when it comes to the need for awareness and the ensuing application of knowledge obtained from the course. A definite added value was expected by inviting Jordanian and Palestinian participation. The course was thus of the sub-regional type.

The thematic expert and accompanying lecturers have experience in the region, and beyond, in both capacity building development and environmental awareness for over 12 years and are aware of the needs. Selection of course content and aspirations for the level of desired participation are clearly shown in the course description sheets. Environmental impact assessment is only of value when impacts and their mitigation are known. The course addressed impacts thoroughly and provided guidance to conducting relevant impact assessment studies. Naturally, as stated in the CB/MEP terms, pollution can be reduced through application of appropriate technologies. The course also dealt with this aspect in detail. The course differed from an earlier course delivered in Barcelona on a regional scale because it included a substantial amount of modelling to which the participants became exposed.

Course and Project Aims

The course targeted directly the aims of the project, namely building the capacity and resources at institutional and civil society level, raising awareness towards further integration of environment in different sector policies, and included in the process different actors from local and sub-regional level; all to build the base towards addressing the final and most important aim of the CB/MEP project; that of raising the level of political priority given to the environment.

Twenty Seven (27) participants in total attended the course of whom three (3) were from Jordan and three (3) from the occupied Palestinian. One could distinguish between the backgrounds of the individuals in terms of both, background knowledge and specific information that they were seeking from the course. One common denominator was the eagerness to absorb knowledge and the desire to participate. Ideally, as instructors, a more homogeneous group would have extended knowledge further but the course contents and discussions catered to the individual needs and addressed the most up to date state of knowledge. Participation and interaction were witnessed through discussions, individual country presentations, and a well worthwhile site visit to the very interesting Hadeira desalination plant in Israel. A list of participants, and their affiliations are shown at the end of this report.

The participants were provided with all the lectures on a USB disk. The disk also included fairly comprehensive literature references and whatever texts available in soft format.

Evaluation of Course Outcomes

Key information disseminated throughout the four days, against the background that desalination is not an automatic response to augmentation of supply, included desalination growth of the industry which has environmental, one-time as well as cumulative, impacts that can be mitigated. Furthermore, sustainable project designs, EIA and BAT are approaches which are necessary to mitigate impacts. Participants had the opportunity to investigate case studies of discharge using the Cormix model. They could open, run and analyze discharges from a RO plant as well as a MSF plant.

Evaluation forms were filled by sixteen (16) participants. Responses from the participants generally indicate that the objectives were achieved. The following are extracted from the evaluation forms:

- In response to a question on how the individual participant experienced the program, comments ranged from the programme being enriching to useful and relevant with one stating that it was amazing. All agreed that the course contents corresponded with the information delivered before the course. All but one would want to keep the course as it is if it were done again, with one wanting more biology. On learning points that would need more attention in the future, few wanted more information about the operations of the plants and discharge quality. On the elements of the course that need to be adapted, the response was very low with the ones that responded referring again to plant operations.
- The following table gives the question and relevant percentages of the responses.

Question	Strongly Disagree	Disagree	Agree	Fully Agree
I now have a better insight in the course theme			1 / 16 6%	15 / 16 94%
It was easy as participant to speak during the course				16 / 16 100%
Course was presented in highly interactive way			2 / 16 12%	14 / 16 88%
Appreciated I could participate actively during course			2 / 16 12%	14 / 16 88%
Because of course, I am stimulated to take initiative in my work environment			8 / 16 50%	8 / 16 50%
Sessions were clear and properly organized			3 / 16 19%	13 / 16 81%
Various topics were sufficiently adapted to course theme			3 / 16 19%	13 / 16 81%
Course was coached in an exciting and vibrant way			3 / 16 19%	13 / 16 81%
Atmosphere between participants amicable/friendly			2 / 16 12%	14 / 16 88%
Location was most suitable for programme			7 / 16 44%	9 / 16 56%
Infrastructure (space and materials optimal for program)			7 / 16 44%	9 / 16 56%
Course contents easily practically applied			4 / 16 25%	12 / 16 75%

In similar courses held in sequence, the objective of survey forms is to improve on course outputs based on participants' inputs. This is the second course held on the topic of desalination and environment. Whereas 50% of participants strongly agreed with the statement that the course achieved the learning objectives in the last similar course, this time it is closer to 100%. On whether the module is assessed/examined in an appropriate way 33% strongly agreed in the last course while this time it is above 90%.

All participants (100%) simply agreed or strongly agreed positively with the questions related to theme, participation, location, sessions, delivery, and contents applicability. Assuming the questions are given equal weight, 78% strongly agreed with the objectives while 22% simply agreed. There were no disagreements at any level. By disregarding the two questions related to space and location, as well as the controversial question on whether the course has been positively stimulated to take initiative in the individual's work environment where the split was equal between simply agreeing and strongly agreeing, the overall strongly agreeing percentage goes up to 86%.

Closing Remarks

From experience, the course achieved its targeted objectives, and was a great success. Both my accompanying lecturers and I, as course leader, were privileged to have contributed to it. There are plans to conduct one similar course on the national level in Algeria. Participants' comments from this course would be taken into account in developing and implementing the upcoming course in Algiers.