



LANDAU NETWORK - CENTRO VOLTA
Villa Olmo – Como
Water Security Division

Report on the activities 1st semester 2003

**Educational program on water management in Palestine
WATER PROJECT IN MIDDLE EAST**

Forward

LNVC, in the frame of its activities of scientific consultancies for the Municipalities of Como, under the auspices of the Ministry of Foreign Affairs and accordingly with the policies of the Direction General of the Mediterranean Countries and Middle East of the same Ministry, facilitates, since 1999, the dialogue between Israel and the Territories. These activities were sponsored and gained cooperation and financial support of private companies since 1999.

The work has been recognized and encouraged by the Italian Government and at the same time by Israel and Palestinian Authority. Ostensibly because all parties recognize the seriousness of the raised issues while appreciating the purely technical subjects involved, the modality of pursuing of the goals and the transparency of the approach.

This allowed us to establish trustworthy relations with Israelis and Palestinians and to become a technical-scientific partner of both.

Among the achieved results are the following: signed white paper addressing the cooperation among the hydraulic systems of the Jordan Basin (1999); the organization of an international Forum on Water Security with the participation of the Middle Eastern Hydraulic System (2000); signed agreement of cooperation between Landau Network and the Palestinian Water Authority—PWA—(2002); technical assisting to the Italian Embassy in Tel Aviv in the organization of the Italian Israeli Workshop on Environmental Technologies (2002); implementation of an educational program of PWA technicians for the improvement of the hydraulic efficiency (2003).

Vision

The clear and contingent international wish to resolve the Israeli-Palestinian situation facilitates hopes and perspective of peace for the entire Middle Eastern region. The International Community is aware of their responsibilities in guarantor of the conditions for peace and offering perspectives of development to reduce the economical inequalities fueling the social tensions. The commitments of the international community cannot be fully effective by itself unless there is a clear cut wish and responsible support of the local populations.

The experience accumulated by us in the last several years shows that there are objective difficulties for the pursuing of a long term sustainable development, transcending ideological, religious and political issues. These difficulties are intrinsic and lie in the regional reality—the scarcity of natural resources, worsening of climatic conditions, in a demographic pressure that goes beyond the natural sustainability in the geographical context (especially in Gaza).

As is well known, the whole region is hydrologically deficient and suffers from various serious problems of water supply. These problems due to international agreements and technical interventions had found partial solutions which can be considered satisfactory in the present political, social, economical and geopolitical context. A redefinition of the international map can acutely reenergize the water problem. Namely, in a vision of economical development of the Territories, the sharing of the resources between Israel and Palestine can become critical factor in final negotiations. In particular such issue as protection against acute or accumulating pollution events caused by a neighbour. In this last case, because of the underground ponds structure, Israel may suffer with high probability.

It is clear in fact that because of the unique nature of the hydrographic basin, the issues of quality and management of water resources go beyond the “frontiers” between Israel and Palestine. Presently the situation can be summed up as follows: scarcity of fresh water; inefficient management; low quality of underground ponds (due to fertilisers and industrial waste); penetration of salt water wedge (due to geological structure and over pumping); growing problem of desertification.

Goals

The analysis indicates the urgency of issues involved, especially in anticipation of independence of Palestinian territories. There should be a drastic progress in the efficiency of human management, in particular that deals with primary resources like water, which, in addition to hydro-potable use is also the key for the social and industrial and agricultural developments.

The problem of water resources scarcity does not affect the Territories only, but Israel and the whole hydrographic basin of the Jordan river as well.

Because of the hydraulic reality, it seems urgent and necessary in parallel to the political peace process progress to initiate:

- 1) program of improved hydraulic efficiency for the whole territory, especially in the West Bank and Gaza;
- 2) program of pollution prevention and safeguarding of the resources at a basin scale;
- 3) improving and implementing of the technologies for alternative water resources adjusted to local environment;
- 4) evaluating and monitoring the available water resources in the region (first hydrologic study had been promoted by LNVC in 1999 with the patronage of EC and realized by Israeli and Palestinian scientists);
- 5) developing water basin plans for the management of water resources that address, through a central super national administration, sustainable choices of development (a model can be the Italian Po River Basin Authority).

While the first three points can be achieved on a technical level alone by building of an integrated high efficiency water cycle, the last two seem to be fundamental for a proper management of the resources as a starting reference for guiding the future economical and political choices.

Activities 1st semester 2003-the start of the educational program

Concerning Palestine, for the realization of an integrated cycle of water it seems necessary, in parallel to infrastructural works for the water distribution, collecting of waste waters, waste water treatment, potabilization, desalination etc., first to improve the Palestinian local technical and managerial capabilities.

This is the phase “one” on which LNCV is presently working in accordance with the directives of the Italian Ministry of Foreign Affairs.

The phase one of the educational program was realized in 2003 due to cooperation and financial support of two Italian companies, leaders in environmental management: ACSM of Como—the main body for water management in Como district, and CESI—the centre of research of ENEL group.

The program of education was jointly defined with PWA, focusing at the priorities of management and development that would allow the coordination of the numerous administration entities for water management in the Gaza strip. These preliminary activities were taking place in the frame of the agreement of cooperation signed in Gaza on October 2002, between LNVC and the Palestinian Water Authority, thanking the support of the Governorate of Gaza and the Dept. for International Relation of the National Palestinian Authority. The educational programme had been announced in Como on February 2003, at a press conference attended by local Authorities and High Palestinian Officials.

As immediate follow up, in the spring of 2003, two group of technicians of the Palestinian Water Authority came to Italy to follow specific training courses c/o ACSM, COMODEPUR and CESI. The total seven Palestinian technicians for the training duration of total 3 weeks.

At ACSM, the Palestinian technicians had the opportunity to see how the cycle of water is organized and managed in the town of Como, from pumping from the lake to the urban distribution system, including tariff system and individual consumers monitoring.

At COMODEPUR they had the opportunity to see the process of collecting and the treatment of water waste at a local plant.

At CESI, they visited the chemical laboratories for environmental monitoring, the European certified lab for testing the new materials used in geotechnical management, the laboratories developing models and criteria used for environmental impact analysis; the laboratories for numerical analysis of hydrological phenomena.

The results achieved during the training courses were appreciated by the PWA and this positive experience allowed to establish good climate for the continuation of the program in the future.

The work plan for continuing educational activities is already defined and the program is under evaluation for funds.

Continuation of the program

The program for the activities in 2004 considers various educational instruments that go from cycles of work c/o water administrations and industries, specialized advanced courses c/o universities, design directives for *in situ* infrastructural project, instructing *in situ* on

maintenance plans, etc. In parallel, a scientific programme of partnership between Palestinian and Italian Universities is being organized in order to define a programme of exchanges, seminars and specialized courses.

The ambitious goal is to render autonomous the water municipalities in a modern and competitive way, supporting them in the process of optimization of management and reorganization of the numerous local entities. The result should be in an improved capabilities of management of the local resources, i.e. minimization of losses and pollution phenomena, reuse of treated waters for the recharge of the ponds, improvement of irrigation techniques; use of brackish waters in agriculture through planning criteria and environmental impact techniques; directing the choices of social and economical development in accordance with the regional reality. These goals, accordingly to the policies of the Direction General of Mediterraneo, will be reached together with the Municipality of Como, with assistance and cooperation of Ordine degli Ingegneri della Provincia di Milano, Consorzio Irriguo Est Sesia, Fondazione Minoprio, Udine University, Politecnico di Milano as well as our traditional partners ACSM, CESI, Comodepur.

Notwithstanding its absolute significance the water issue appears also to be an effective instrument for building *reciprocal confidence between Israelis and Palestinians, facilitated and mediated by an impartial third party such as Italy.*

Efforts have started to internationalize interest to our approach. In particular the program was preliminary discussed at Nixon Foundation (Washington DC) and follow up is expected.

For the realization of the above stated goals contacts with Israeli bodies and preliminary discussions with various influential individuals are in progress. At the same time we are well on track in deepening our contacts with relevant Palestinian representatives.

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