

**Statement by Dr Hazim El-Naser for the joint public hearing organized by the
German Bundestag entitled
“Water – an ever scarcer resource worldwide”**

Water - a vital element for life, economic prosperity, and environmental well-being has varying shortage level in The Middle East and North African Countries (MENA). **Although water shortages are a worldwide problem, our region remains the most arid in the world.** Three-quarters of the MENA region’s land area is arid, receiving less than 200 mm of rain per annum. For example 93% of Jordan’s area receiving less than 200 mm/yr, and thus considered as desert area.

Water demand in the region is rapidly increasing. MENA countries contribute about 5 percent of the world's population yet have less than 1 percent of the world's annual renewable freshwater. The population, having already more than doubled in the past 30 years to about 280 million people, and could double again in the next 30 years. Jordan in this regard has a unique problem where its population has tripled in a very short period of time as a result of the Israeli-Arab conflict where hundreds of thousands of refugees, displaced persons and returnees came to Jordan in 1948, 1967 and 1991, respectively. This situation has greatly strained the already limited water supplies.

Freshwater resources became scarce. About 45 million of the region's people -- 16 percent -- lack safe water, and more than 80 million lack safe sanitation. For example, in Jordan, Yemen, the West Bank and Gaza, per-capita availability of renewable water today is less than 175 cubic meters per year, already far below the projected regional average for the year 2025. The per-capita availability of renewable water in Jordan by the year 2020 will be 90 cubic meters, if no regional projects implemented by then.

Some countries are destroying their precious resources through over mining of groundwater. Groundwater resources throughout the region are overexploited. **Shortages are compounded by pollution.** Contamination by fertilizers and pesticides, dumping of municipal and industrial wastewaters into rivers and lakes, solid waste deposits along river banks, and uncontrolled seepage from unsanitary landfills -- all these factors are degrading freshwater resources and imposing health risks, especially for children, the primary victims of waterborne diseases. Jordan is over-pumping its groundwater resources by 100% above their safe-yield in order to meet the minimum current water demand for the basic uses.

The Middle East and North Africa are the most affected regions when it comes to regional water conflicts. Much has been written about them collectively and individually either by politicians or scientists. A common denominator among them is the absence of comprehensive riparian agreements that regulate the rights and responsibilities of each riparian in water sharing, environmental protection, inefficient use, exchange of data and the avoidance of inflicting appreciable harm upon co-riparian.

Regulating water use and riparian allocations is of great importance to enhance cooperation among the parties. International agencies and donor countries are invited to play a more active role in helping countries to resolve their problems and enhance regional cooperation. **Jordan and Israel have defused the tensional situation** by replacing confrontation with negotiation, as the two countries agreed to cooperate in water use and management of the Jordan and Yarmouk waters. The signed agreement between the two countries on water related matters, however, is a bilateral and has been agreed upon without relying too much on international laws or principles.

The consequences is that MENA countries are facing major water management challenges because demand is exceeding supply which, if left unchecked, will constrain their efforts to achieve higher sustained rates of economic growth. The need for immediate financial resources, if not provided in the immediate term, will cause public health problems due to either lack of domestic water supplies or lack of appropriate wastewater collection and treatment systems available.

In response to the water problem, and to meet the challenges, MENA countries are requested to manage water in an integrated manner to meet national objectives-economic, social, security, environmental-rather than as an input into certain sector. Institutional and policy reforms and capacity building are critical to sustaining policies, programs and projects. Efficient utilization of water resources through new technologies, private sector participation and proper pricing mechanisms is essential for sustainable use of resources and good services to the consumers. Finally, international water issues and regional cooperation should be given particular attention. ***Several governments have demonstrated their commitment to tackling water issues*** in a coordinated and comprehensive manner as in the case of Tunisia, Jordan and Morocco. Jordan formulated its water strategy and the related policies years ago. The water policies were followed by investment program and action plans in coordination with donors and international financing institutes for the year 2010.

In order to enhance the current water supply and sanitation coverage of the region, MENA countries need to increase their investment in water and wastewater projects significantly. Jordan, for examples, which stands in the middle of the MENA region with respect to the number of population served with water supply and wastewater systems requires about \$4 billion for the coming 10 years (till the year 2011) or \$0.4 billion per year to implement its water projects. Simple calculations show that the requirements of the MENA region could be in the order of \$15 to \$20 billion per year in order to meet the population needs for basic and essential services. It is rather difficult for regional countries to generate those amounts from water revenues or by borrowing from conventional donors. Therefore, private sector participation is essential and very much needed to implement future project. Jordan, for example, started a very ambitious program with the private sector. Around one billion dollar worth water and wastewater projects will be implemented soon on BOT basis. Operation and Maintenance contract for the biggest water utility in the Kingdom is being operated by a private company.

Finally, the management of water utilities by and large is governed by theories and empirical experiences, gained in the developed and industrialized countries, with an established and respected legal framework being the basis for all operations and activities.

When trying to adopt these methods in countries, which are ***struggling to guarantee even the absolute minimum level of supply to their population which are suffering*** from limited financial and other resources and are forced to apply crisis management as the guiding business principle, failure or sub-optimal performance is an expected regular result of even well planned assistance projects.

An urgent need for research and studies is therefore seen on themes which support the development of management principles and tools, integrating formal and informal decision making processes, applied in an environment with a limited law enforcement capability of the existing government bodies"