

Summary of a CAO's Audit Report on the Extent of Appropriateness and Soundness of the Potable Water 2000/2001 (Egypt)

Theme: Protection of Water

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Introduction:

Water pollution is regarded as one of the most serious phenomena of the environment pollution, thus subsequently necessitates the existence of a strictly—tight control over the water resources and the services of providing the citizens with pure potable water (either ground or filtrated at the appropriate health rates and specifications. In application of the state-oriented strategy adopted till year 2017 and its laid goals of developing the sector of potable water, such services are scheduled to be expanded to cover the different regions of the republic.

The CAO has prepared an audit report 2000//2001 on the extent of appropriateness and soundness of the potable water including its remarks and observations, supported by the evidences and recommendations on the follow-up and evaluation of the role of some concerned entities subject to the Ministry of Health and Population which assumes the responsibility of setting controls, criteria and necessary conditions of providing, the pure potable water.

Such entities are the General Department of the Environmental Health, the Central Department of Laboratories and the Public Authority of the Great Cairo Water Utility which is entitled to providing and directing the potable water facilities in Great Cairo i.e. (Governorates of Cairo, (Giza and Kalyoubia) according to norms and specifications of the Ministry of Health and Population and the World Health Organization (WHO).

First: The Scope of the Audit Process—undertaken during 1999–2000, 2000 2001—tackled the following elements with a view to measuring the progress undergone by each:

1. Getting acquainted with the rate of the potable. water network coverage at the level of the all governorates (according to the last statistics of the Organization of Statistics and Public Mobilization—1999).
2. Listing all potable water—related operations which have been carried out at the level of all governorates and the type of each.
3. Getting acquainted with the competences of each department of the entities that are subject to evolution and follow-up regarding the projected plan. Its actual implementation during 2000–2001 in addition to the attained achievements.
4. Defining the legal framework annex I within the field of potable water, as concerns laws, statutes and decisions of securing the quality and appropriateness of the potable water from the hygienic perspective with a view to ascertaining compliance with the provided conditions, norms and

- limitations as well as verifying the measures and prosecutions taken in case of non-compliance and violation.
5. Getting acquainted with the conditions of the potable water whether produced from the treating network, the ground, the tanks, or the mixed, bottled and mineral, etc at the level of all governorates and individually at the level of each, in addition to getting informed of the extent of compliance with the health norms and criteria, and the application of all tests and examinations defined by Law.
 6. Evaluating the extent of efficiency of the samples taken from the stations of purifying and producing water throughout the governorates (filtrated—movable—ground) and the Great Cairo stations of Great water (which amount to 13) as well as the Conditions of the potable water (starting, from the stage of purification the ejection of the station), the compliance of each Station with the Conditions Stipulated by law regarding the wells, the periodic samples, the hygienic criteria of, the produced water.
 7. Getting acquainted with the adopted' system of monitoring the potable water in the phase of production and the water produced from the ejection of the stations and the networks.
 8. Verifying the commitment of the eater-producing entities, via the actual execution of their plans, towards realizing the state plans and strategy which aim at increasing the amount of the produced pure potable water so as to provide the deprived districts so as to the increase in population and the construction expansion.

Second: Determining the technical measurement sources for all auditees, supporting the evidences with documents and combining the results gathered from all auditees as a proof tool for performing the evaluation process awl help forming the technical audit opinion

These sources, as concerns the years: 1999–2000/2000–2001, are represented in the following:

- Statements, statistics. laws, norms and specifications of the potable water stations and networks in each governorate.
- Recommendations, observations and the technical directives mentioned in the reports, prepared by the entities of the technical controlling supervision, on the stations, labs, records, books, conducted examinations and their monthly and annual results of the departments of each governorate.
- Dossiers of the periodic achievements, the statistics of the samples-either taken from the filtered or the ground water and the results of the different exercised tests.
- Folders, official correspondences and the work process in each entity while being audited.
- Complaints, contingent environmental problems training files and the projected plans.
- Reports, prepared by the health directorates in each governorate on the stations' condition alone with the environmental health survey.
- Meeting the principals, conducting the necessary discussions and obtaining all explanations and clarifications required by the CAO.

- Getting informed about the technical opinions of some research centres and specialized public institutes, subject to the CAO auditing, as neutral entity of technical consultation.

The results of the researches and studies carried out by these entities should be taken into consideration, as indicators, (wheat) preparing the CAO's report.

The CAO, through the follow up and performance evaluation, realized the state of the potable water as follows:

1. Number of the water purifying stations reached. throughout the Republic for the year 2000/2001, 1641 stations, ground water stations were 1803, the portable water stations 602 and the analyzing units were 11 .

2. Reading the results of examining the Greater Cairo water samples analyzed by laboratories of the Ministry of Health and Population during the year 2000/2001 in-both. Cairo and Giza shows that:

The purified potable water which has been treated with chlorine is represented in (the bacteriological water network, the common examination water network, trenches water and tanks) etc. Such kinds don't exceed the allowed non-compliance rates.

3. Reading the results of all samples analyzed during the water purification stages throughout the Greater Cairo water stations affiliated to the General Organization for the Greater Cairo Water Supplies (GOGCWS) during the years 1999/2000 and 2000/2001 shows that:

All analyses of purification, filtration, tanks and trenches are fully Complying with the concerned law as proved by stations' laboratories.

All stations analyses made by the Organization's Central Laboratory for the heavy minerals and radioactive materials as well as the microbiological analyses were within the limits and rates which are legally allowed in accordance with the standards and specifications laid down by the World Health and Population and the Ministry of Health Population under resolution N 108 for the year 1995 during the two years. The fact that shows efficiency in the performance of the water supplying stations.

4. The; little contribution of the ground water (wells) supplied by the GOGCWS stations which amounted to 1.6% only of its total production all over Greater Cairo in the year 2000/2001 up to June 30, 2001.

The CAO recommendation is to review the possibility of increasing the ground water contribution in providing the deprived areas with water as well as enhancing the production of the outstanding stations to be in an equal footing with the districts of Al-Arniria and Mustarod

5. Increasing of the total quantity of potable water in the Greater Cairo With all increase rate reached 4.7% for the year 2000/2001 over the year 1999/2000.

6. Increasing training activities by increasing the number of courses. trainees and widening them to include the largest number of governorates especially for those specialized in the field of analyzing water.

7. Potable water in the state of improvement in some governorates, this is observed through the various checkups applied in year 2000/2001.

Annex

The legislative framework concerned with potable water and its usage (It is considered the most important scale of measurement):

1. Presidential decree n 2703 of 1966 concerned with establishing the Supreme Committee for Water under the Ministry of Health. This committee is concerned with studying all matters related to potable water; its resources, ways of treatment and transmitting it to consumers.

It is also concerned with approving the projects of water and its treatment from the aspect of health before implementing them.

The resolutions of the committee are binding to both governmental and nongovernmental entities, through this committee we have observed that the Ministry of Health is the only responsible entity for setting up the standards and conditions of potable water.

2. Law no 27 of 1978 concerned with regulating water public resources required for human usage, and according to article (6) from that law the Minister of Health issued the following decisions:

Resolution no 108 of 1995 concerned with the standards and specifications that should be available in potable water. beside laboratories check-ups within the Central Department of, laboratories affiliated to the Ministry of Health and its sub-branches in various governorates, this decision determines the permissible limitations related to:

- Natural characteristics.
- Unorganic materials that may affect its relish and household usages.
- Chemical materials that may affect general health (Organic and inorganic materials).
- Microbiology standards (total number of bacteria—pollution indicators—biological inspection).
- Radioactive materials.

3. Minister of Health Resolution no 301 of 1995 concerned with health conditions of potable water processes and preserving it from pollution. The decision stipulated that the water source must be 500 meter away from electricity, and empty from buildings and pollution sources beside taking samples of water and checking them (chemically and bacteriologically).
4. Standard Specifications no 1588 of 2001 concerned with