

**II. The Comments on the Comptroller's Report
by the Water Commissioner Tzemah Ishai**

April 1991

General Comments

1. The Water Commission has always regarded itself as being in charge of implementing the policies of the Israeli government. In the past few decades, the Israeli government has elevated the settlement of the country to the highest priority and that meant that water for agriculture was also given a high priority. It is within this context that the Water Commission has operated, and it should be emphasized again that this policy was not evolved by the Water Commission, but by the government. It was the Cabinet and the Minister of Agriculture that decided on the most detailed plans for agricultural settlements, including the number of settlement, their location and the number of settlers.

2. The Comptroller's Report did not discuss the problem of investment in the water system. In the past ten years, the investment has decreased very significantly. Because of the lack of funds, only the most urgent water needs were addressed to the detriment of the more long range development projects.

Chart 1: The Development Budget 1981/2 -1900/1

Chart 2: The Total Water Budget 1981/2 -1900/1

3. Even within the budget allocation, the WC had little freedom of action; the Ministry of Finance supervised most of the projects and often threatened to stop payment on some of the planned projects. Some of the examples: Eshtaol 8 drilling to provide water to Jerusalem, desalination plants in Eilat, the third line to Negev, and the fourth pumping unit in the Kinnereth were all delayed by the intervention of the Ministry of Finance.

4. In order to increase its development budget, the WC had to divert money from subsidies and resort to other budgetary manipulation. Because of it, the Ministry of Finance submitted a complain to the Legal Adviser to the Government.

5. In spite of all the limitations, the Water Commission developed a number of projects, among them the Gush Dan reclamation project that can transfer 120 MCM of Tel-Aviv region effluence to the Negev.

Table 3: The Amount of Water (in MCM) that were developed during the past 10 years.

The budgetary delay in completing the Gush Dan project, had caused the loss of some 80-90 MCM annually, during a number of years. This amounts to a direct "contribution" of 300 MCM to the water deficit. In addition, it was possible to produce an additional 30 MCM an year from the Dan project, if there would be more budget available.

Even today, some 200 MCM of water are flowing into the Mediterranean Sea, the Dead Sea, and the Red Sea because there is not enough storage capacity.

Disregard for the Master Plan

1. The WC objects to the Comptroller's finding that he did not disregard the recommendations of the Master's Plan. This is patently untrue. The WC had commissioned and financed the Plan, and was involved in the process of preparing the Plan. After the Plan was completed, the WC arranged the various topics according to the degree of urgency and created special teams in order to implement the recommendations. One of recommendations, the creation of a National Effluence Authority was submitted to the Knesset in 1989. The WC is also using the Plan to plan the agricultural settlements in various regions of the country.

The Depletion of the Water Reserves of the Country

1. The decision to lower the level of Kinnereth to 213 meter was taken 12 year ago; it was based on the recommendation of experts and was done in order to save great amounts of water that would have ended in the Dead Sea. The country spend large sum of money to prepare the new infrastructure around the Kinnereth in preparation for the gradual decrease of the level. Without this action, the water system would have lost some 40 MCM on average.

2. In the 1950's Tahal had developed a plan for operating the Coastal aquifer. Under this plan, a large "one shot" withdrawal of water from the aquifer was decided upon which also took into consideration that saline water would intrude into the aquifer. This action was undertaken in order to withdraw the operational reserve until the National Carrier was operational. This plan was continued until 1964 when the Carrier became operational. The plan did not treat this as overpumping, but as a one shot pumping of the reserve.

The fact that there was a large deficit in the Coastal aquifer was know to the WC who in 1984 ordered a survey of the aquifer. In 1986 the level of the aquifer was 0.4 above sea level and as a result of the various actions taken by the Water Commission, the level stabilized at 1.2, in spite of two draught years in 1989 and 1990. The Comptroller's Report makes only a

passing mention of this tremendous effort and even emphasizes that the rehabilitation has been stopped last year (which was a third draught year).

It should be emphasized that, if it was not for the three consecutive draught years, the improvement of the aquifer would have been much more pronounced.

3. The fact that the quality of water in the Coastal aquifer has deteriorated should not be attributed to overpumping only. Part of it derived from the fact that the catchment of large amount of water in the center of the country, which would have normally flown into the sea, has increased salinity around the Coastal aquifer.

In addition, the rapid urbanization of the center of the country has interfered with the natural recharge of the aquifer. In addition, there were other causes of contamination, from irrigation water, fertilization etc.

Mountain Aquifer

1. The claim in the Comptroller's Report that the "red lines" in this aquifer were compromised is not true. This claim was made by one of the officials from the Office of the Comptroller, who does not understand the hydrological facts. In reality, the "red lines" in this aquifer are based on +9 in the Menashe drilling near Benyamina, and after three years of draught, the level in this drilling is still +9.

2. It should be also emphasized that Tahal has changed on a number of occasions its findings and recommendations, and as a result, it was difficult to adhere to the various changes.

3. The principle of conserving the water resources of the country has been always dominant in all the activities of the WC. Already in 1983, the WC had issued policy guidelines - based on an advisory panel of foreign experts - how to operate the water system under conditions of scarcity.

During all this years, the WC had worked hard to preserve the splendid water system of Israel.

Compromising the "'Red Lines" in the Water Reservoirs

1. The Comptroller's Report uses the term "red lines" and criticizes the WC for breaching these lines. However, in reality, the "red lines" in Lake Kinnereth were recommended by experts and the level was lowered in a planned way. With regard to the Coastal aquifer, the damage was done during the big immigration in the 1950's and early 1960's and was already described as "planned damage".

The situation today is an outcome of a prolonged draught that is an extraordinary event (one in a hundred years). According to the WC. there are two ways of dealing with extraordinary events:

to keep the "internal ecology" in order, i.e. to adjust the water allocation to the changing conditions or to proceed with the planned water allocations because of the constant nature of our commitment to society and the economic system. According to the WC the latter option is the more proper, since it is impossible to change standing societal and economic needs.

2. The Comptroller's Report argues that Tahal recommended to keep a operational reserve of 140 MCM in the Kinnereth. Such a recommendation means that the "red line" in the lake has to be risen by .80 m above the one that was decided, but the WC was not aware of such a recommendation and there was never a debate to increase the level of the "red line".

3. The Comptroller's Report chose a arbitrary number of years in order to analyze the water system. A more logical one would have been to chose a comparison of levels in autumn of 1979 and autumn of 1990: both were draught years. Even this period was chosen, if would have shown that during the entire decade, the level have increased with the exception of the Jordan valley and Gaza. The comparison between the different levels in the last decade is included in Table 4.

Table 4: Comparison Between the Levels of the Aquifers at Various Locations (between Oct. 1979 and Oct. 1989).

The Allocation of Water Quotas Above the Available Levels

1. The Comptroller's Report used a new term "planned allocation" which has no base in reality. The numbers in the "planned allocation" columns were culled from various working proposals and recommendations of Tahal, but the WC objects to such use, because these "planned allocations" have never been debated or recommended by anyone in the Water Commission or the government. This category was used in order to obscure the fact that the WC has strived very hard to decrease the actual allocations in the past decade. The extent of these reductions is indicated in Table 5.

Table 5: Reduction in Actual Allocations by Category.

2. It should be emphasized that the current WC was the first to start the policy of decreasing the water quotas. For 25 years now, it has been known that there is a need to do this. In 1979 the then WC Meir Ben-Meir recommended to the then Minister of Agriculture Ariel Sharon to decrease the water quotas, but then he was notified by Tahal that it would not be needed because of the rainfalls.

The first time that the water was cut down was in 1986: 160 MCM in agriculture and 40 MCM in domestic use. The decision was debated in the cabinet which empowered the MA to carry it out. It should be emphasized that the decision was reached only a long and detailed debate about the water system in which both the Ministry

of Finance and the Ministry of Agriculture including the WC participated.

In 1987 there was another cut, which the WC recommended. The WC insisted on the cut in spite of the fact that it was a rainy year and the gates of the Degania dam were opened to release some 100 MCM to the Dead Sea. I defended the cuts against the demands of the farmers who wanted to get it back, on the ground that it was a rainy year. My decision was based on the overall welfare of the water system and long-term planning. 2. It should be also emphasized that the WC actually used these reductions for the farmers in order to increase the domestic allocation. The Comptroller's Report states that the WC had shortchanged the domestic sector, so as to please the farmers. Table 6 demonstrated the various allocations by sector.

Table 6: Allocations by Sector

Damages to the Farmers as A Result of Delaying the Decision on Allocation

1. The Comptroller's Report argued that because the WC had not notified the farmers in time about their quotas for 1990, the farmers proceeded to plan the season on the basis of inadequate data. This caused grave financial damages to the farmers.

This finding is totally unfounded. Normally, the farmers are notified in December of every year about their allocations, when the Licensing authority in the Water Commission issues the annual water licenses. The farmers knew in December that there is a good chance for reduction, but asked the WC to delay the allocation decision, on the basis that there would be more rain in January-March. The WC agreed, on the conditions that all the necessary steps for a cut can be made. The WC personally travelled across Israel and discussed the situations with the farmers. The WC is totally surprised by the findings of the Comptroller's Report that the farmers lost because they planned the season on the basis of unreduced allocations. There is no base for such a finding, since the farmers have not complained to the Comptroller. It is well known that the farmers are extremely sensitive to their water needs; every time there is a reduction, they immediately petition the political system and file complaint in the courts. However, there were no protest that year, which indicates that the Report falsely claims to protect the farmers.

2. The Comptroller's Report totally ignores all the other dimension of reduction in water allocation: the decrease in output in the year of the cut, decrease in output in future years, especially in multi-year branches. By concentrating on water only, the Report ignores all the other aspects of national agricultural economy. In order to affect cuts, there is a need to change the entire farming policy of Israel.

The Policy of Substituting Fresh Water with Reclaimed Water in Agriculture

1. The Report decided that the pace of the program is not satisfactory and that the WC has not acted energetically enough. This is not true, on the contrary the WC started the project and also financed the many purification and other marginal water projects. The officials who wrote the Report neglected to learn the subject.

The Cost of Water Production and its Consumer Price

1. The Report tried to provide a picture of the complexities in calculating the real cost of water, emphasizing the economic aspects. However, the cost of water is decided upon based on many different considerations, whereby the economic consideration is not the top priority.

2. Economic considerations only would have mandated farming only in the north of the country, where the cost of water is relatively low. However, because of security and national consideration, the map of the agricultural settlements is very different.

3. The Comptroller's Report argues that the Water Commission ignores the real cost of water production in calculating consumer prices, but it should be emphasized that sect. 112 of the Water Act 1959 stipulates that the price should be calculated on the basis of the ability of the consumers to pay for the water.

4. The Report argues that under pressure to develop more alternative water resources, economic considerations were ignored in many projects. This is simply not true, as every project was scrutinized for economic feasibility.

2. The Report notes that in calculating water costs, the Water Commission ignores the cost of capital and depreciation of plant. This is not entirely correct, since Mekorot, which receives 95 percent of the subsidies, uses a large part of the real costs as a base for its calculations. The company has to pay the interest and index cost for all development loans since 1979.

3. There is a debate among the economists whether to include the cost of depreciation in the investment into infrastructure, or not. There is also a problem in defining the limits of infrastructure investment: according to some experts all costs of infrastructure should not be related to the calculations of water prices, but rather should be put in a category of national infrastructure development that the national rather than water budget should pay for.

The current WC was the first one to ask that investment in water projects should be linked to CPI, so that private investment can be encouraged. This proposition was brought to the Water Council in 1984, but in spite of two years of debates the proposition was not approved because of the opposition by the farmers who were supported by the MA. At the same time, the WC

does not consider the stand of the Report and the Ministry of Finance, which the Report reflects to include the total cost of infrastructure in the calculation of water prices. This is not applicable because of the reality of Israeli agriculture.

It should be emphasized that in most the Western countries, including the United States and Western Europe, farming is heavily subsidized in a variety of ways. In the United States, the state provides and pays for the capital needed for infrastructure to develop water resources. The Israeli agriculture cannot compete with farming in the Western countries that are heavily subsidized by the government. The Israeli government needs to decide whether the Israeli agriculture would be subsidized through water prices, and thus can compete in Western markets, or would operate like agriculture in Third World countries, which is based on human backwardness.

In treating the price of water as if it is only a question of proper economic management, the Report writers reveal their ideological (paradigmatic) preference. (this is a reference to the fact that many in the Ministry of Finance in Israel and the Office of the Comptroller are advocates of free- market principles).

4. In spite of my opinion that Israel should subsidize the price of water, the Water Commission has labored over the years to decrease the subsidies and increase the efficiency of water use. Table 7 portrays the changes that have occurred in the price of water over the years.

Table 7: Changes in Water Prices and the Process of Approving the Changes

In 1988 there was an agreement between the Water Commission and the Ministry of Finance which linked the increase in the price of water to an increase in the development budgets. This agreement was fully implemented because of reasons beyond the control of Water Commission. In 1989 there was an 54% increase in the price of electricity, and the MA and the Water Commission in the Knesset did not approve the water rates increases.

Instead, the WC developed a new plan, which was based on a differential rate scale: this plan was to enable the individual farmer to decide how much of his quota he wants to use. The less water he uses, the less the price that he pays. The new scheme brought a reduction in demand for water. In spite of the reductions in allocations and the draught, there has been a steady decline in water use since then. Chart 8 shows that the price of water in dollars has increased in the last decade.

Chart 8: Prices of Water in Dollars

Conclusions

The conclusions of the Report are a reflection of the policy preference of its authors. Some of the findings are not based on facts, and others are based on facts that are not relevant. In other cases the Report did not provide an adequate emphasis to the more general aspects of the water system in Israel. The two dominant perspectives in the Report are too narrow (a reference to the hydrological and economic). The Report is based on various experts, and working papers; the Comptroller is trying to dictate a new policy which is not based on the policy of the government.

It is known that in a complex field like the water system, there is more than one policy option. The Report adopts one school of thought, whether it is in the economic field, the engineering field, or hydrological field. The Report does not analyze the management process, but tries to dictate a policy.

It should be emphasized that the actions that were undertaken by the Water Commission were based on various research and modelling activities, including cost-benefit analyses and monitoring consequences of various policies. Then the policies were recommend to the government, which was the final decision maker. It should be clear that it is the government that decided on how large should the agricultural sector in Israel be.

Even according to the Report, there is enough of water in Israel: only 20% percent of the rainfall water is retained and stored in the various surface and ground reservoirs. More water can be retained if there is more investment in the infrastructure, thus making the amount of water a function of how much is invested. However, the government should decide whether it wants to invest heavily in infrastructure in order to keep the current agricultural sector.

The Water Commission would carry out any decision of the government.

The Appendix List

1. The budget for basic development 1981/2 - 1990/1
2. The budget for subsidies 1981/2 -1990/1
3. The gross investment in developing water resources as a percentage of GNP 1960-1989
4. The investment in water as a percentage of GNP 1960-1989
5. The general plan for the waster system -the steering committee April 8, 1986
6. A proposal for a National Effluence Authority, June 1989
7. A decree approving the level of the Kinnerth , the Water Act 1989
8. Lake Kinnerth - summary of activities for 1986
- 9a. The lowering of the Kinnerth level to 213 - 6, 7 1979 - 7, 3 1979.
- 9b. The proceedings from the meeting of the level committee 4, 21-27, 1982
- 9c. Activities involving the lowering of the level of Kinnerth

10. The encroachment of sea water in the coastal region
11. The recommendations of the Hydrological Service for the operation of the Kinnereth, and the aquifers, May 22, 1990
12. The Five Year Plan for Developing of the Water Resources, July 1, 1986
13. Report of the review group on water resources management in Israel July 8, 1983
14. The Policy of Water Utilization in Israel in 1987/8
15. The Water system : Goals, policy and development, March 23, 1988
16. The "red lines" and their management in 1990, May 5, 1990
17. The Characteristics of the rains in the rainy season 1990/91 until the end of December 1990 Compared to the multi-year trends
18. The Decision # 1657 of the Cabinet Meeting of June 8-11, 1986
19. Estimates for Cutting of Water Rates in the Golan, January 10, 1991
20. A letter from the water management in the Galilee about the impending water cuts in Upper Galilee, Feb. 15, 1990
21. The Report of the Comptroller on the Management of the Water System in Israel, June 2, 1991
22. An Announcement to the Producers, Suppliers and Consumers of Water -March 1990
23. An Ad in Ha'aretz about the Cuts in Water Quotas, May 9, 1990
24. An Ad in Ma'ariv about a Drastic Decline of Water in the Coastal Aquifer June 17, 1990
25. An Economic Feasibility Analysis of a Number of Water Projects
26. The Policy of Linking Investment in Water Projects to the Index
27. The Cost of Water Supply in Public Water Projects in the United States
28. The Policy of Water Pricing for 1987/8, 1989, and 1990 - as Explained to the Water Council
29. An Agreement Between the Water Commission and the Finance Ministry with Regard to the Cost of Water and the Development of the Water System, December 13, 1988