

## COORDINATING COMMITTEE OF THESSALIAN AUTHORITIES REGARDING THE WORK OF DIVERSION OF ACHELOOS RIVER

Committee's position on issues deriving from the Acheloos work and answers on questions set to the Executive Commission of the European Parliament by E. P. Deputies.

### HISTORY

The work of diversion of the flow of upper Acheloos river towards Thessalia constitutes an old and vivid vision of the thessalian people and all greeks willing to see their country progress and prosper.

This idea, i.e. the exploitation of the thessalian plane that lacks water resources but strongly needs the evident surplus of the water potential of the Acheloos river basin, has so far been accepted by all greeks since it implies the restitution of a balance climatic and geomorfological conditions do not favor.

Indeed, systematic measurements of half a century prove that the Acheloos basin yearly collects an average water quantity of 5 billion m<sup>3</sup>, while the region of Aetoloakarnania needs for all uses (irrigation, industry) the quantity of 2 billion m<sup>3</sup>.

On the contrary, the Pinios basin, Thessalia, yearly collects an average water quantity of 3 billion m<sup>3</sup>, while the region's needs for all uses (irrigation, industry) are 4,5 billion m<sup>3</sup>. Evidently, there remains a yearly deficit of 1,5 billion m<sup>3</sup>.

On the other hand, the intensive exploitation of the existing water potential for the satisfaction of a wide range of needs has so far created severe problems to the environment and the ecosystem of Pinios river, which already faces collapse.

This reality has led the greek State, after many painful discussions, congresses, meetings and studies between scientists, legal entities and public authorities, to the decision of the realization of the work of diversion of the water of upper Acheloos river toward Thessalia.

- This work aims to the irrigation of a part of the thessalian plane combined to parallel power production along the diversion.

- The work is the most productive and profitable of all works to be realized in our country, according to studies so far elaborated and especially the study of Morgan Grehnfell.

There are estimations that a profit of 170 billion yearly will derive from agricultural production. It is also estimated that the work in its full development shall provide 9,3 % more electricity than if the water was exploited along Acheloos river.

- The most important profit shall therefore be the positive impact to the thessalian environment and the Pinios ecosystem threatened with collapse. Indeed, the river has critically minimal supply during the summer and the subterraneous water level throughout Thessalia has dramatically lowered.

Of course, this is a serious and complicated giant work, especially for Greece, the influences thereof being extremely severe in case faults or failures occur. That's why certain questions and doubts arise.

Such questions have already been set by certain E.P. Deputies, who are really sensitive especially on the environmental consequences of the work.

However, all these questions have already been elaborated by this country's scientists and specialists as well as the state and thessalian authorities. The latter would never wish the diversion to negatively affect the National Economy or have negative influence on the environment of western Greece or Thessalia in general. The answers given provide solutions to all questions derived so far.

We shall try by virtue of the foregoing memorandum to provide proper answers to the questions set by the Deputies to the Commission as well as to the arguments expressed against the work of the diversion.

The questions arisen are classified as follows :

- Firstly, regarding the energy production and the total cost of the works.
- Secondly, regarding the surplus of agricultural products and the efficiency of the work.
- Thirdly, regarding the environmental consequences deriving from the diversion, especially in the Delta of Acheloos river and the economic impact on the region of Aetoloakarnania.

#### 1.1 Regarding the first group of questions.

There have indeed been examined all possibilities of exploiting the water of Acheloos for power production purposes along the actual flow. There has been proved that the diversion outweighs all proposals, providing 9,3 % more power than the remaining solutions.

1.2 The total cost of the diversion works in full development (water storing and transferring works, power production and irrigation works) is estimated in 600 to 650 billion (actual prices). The heading works, assigned according to the contract to be signed (dam and H/E power station of Sikia, diversion tunnel and H/E of Peukofito) are energy production works and they cost ca. 145 billion (initial offer plus revision).

The completion of energy production works (heading works) demands the construction of Pili-Mouzaki dams and H/E station of Mauromati, the cost of these works being estimated in about 65 - 70 billion drch. Therefore, the total cost of power production works amounts 210 billion drch. and not 1 trillion, as mentioned into Mr. Iversen's question.

The cost of the respective power production works, if executed along the actual flow of Acheloos, will be the same. Therefore, the cost of constructing such works either along the actual flow of Acheloos or along the diversion will be equal.

On the contrary, the latter implies a power production increase of 9,3 % plus the transfer of water to Thessalia,

thereby irrigating 3.9 million thessalian plane acres and providing immense profits for the state's economy.

1.3 Regarding the National Electricity Management Company (A.E.H.), which claims indemnization and other royalties, there are following to be noted :

The NEMC has from the beginning opposed to the diversion, always wishing to manage and exploit the country's water resources on its own, for power production solely. There was also a law to grant NEMC this privilege. This was contrary to justice, thus this law has been recently abrogated.

NEMC tried to take advantage on this status claiming participation to profits (a sort of indemnization) deriving from the increase of agricultural production of Thessalia.

Nowadays, NEMC has altered position and demands that the general responsibility of works and the management be assigned to it etc. (see letter of NEMC General Manager to the undersecretary of Nat. Economy Ministry.)

We estimate that the whole subject is combined to the intentions of NEMC to create a climate of confusion regarding the whole matter, we also believe that these problems have already been overcome.

2. Regarding the second group of questions about the profitability of the work and the surplus of agricultural products (questions of Mr. ANTUZZI and Mr. DOWE), following have to be noted :

2.1 The profitability of the work is related to the sales price of these products as well as the production cost. The profit is determined by the relation between these two prices and not by sales price only.

A serious cost factor of the watering crops is the irrigation water. The diversion shall provide low cost water, far cheaper than actual drilling water, that means lower production cost and more competitive products. All studies concerning the economic efficiency of the work have shown the work to be one of the most efficient. Besides, such works are considered multiple purpose works and their efficiency is estimated through global criteria and not a single exploitation purpose.

2.2 Due to its climatic and terrain features, Greece is the country with the greatest capacities of producing agricultural products, specialized or not. On the other hand, it is impossible that the diversion water comes and irrigates the thessalian plane, i.e all irrigation and transfer works are executed, in a period earlier than ten years.

Within this period, there exist time and possibilities for us to proceed to all restructurations or planning needed, to apply new technologies, aiming to avoid any surplus of agricultural products and render them competitive and indispensable for the nutrition and life of the Community's people and the entire World. Besides, the issue of competitiveness affects the issue of market opening inside or outside the Community.

Moreover, it is impossible to pre-determine the future decade's agricultural policies of EC while conditions change dramatically in very short periods. It is absolutely sure that the increase of earth's population shall imply much greater needs of agricultural products for its nutrition. In any case,

Greece should not and shall not only remain a state of services and Tourism but has to proceed with producing because has already got the capability thereto.

3. Concerning the third group of questions dealing with environmental consequences.

When mentioning environment we suggest we must globally examine problems the work implies for all regions affected thereby (Aetoloakarnania-Achelooos river and Thessalia-Pinios river) and avoid unilateral views.

- As for the Aetoloakarnania region and Achelooos delta :

In 1989, a team consisted of specialists of all competent Ministries elaborated a **STUDY ON THE ENVIRONMENTAL EFFECTS OF THE DIVERSION TOWARDS THESSALIA ON THE ACHELOOS DELTA.**

This study shows that :

The region's ecosystems are charged with a variety of problems, due not to water shortage - there is plenty of water- but to planned or hazardous man-originated interventions, such as turning entire regions into salt-pits, drainage, deforestation, dumping, rubbish throw, unauthorized illegal building etc. as well as to improper management of water. Indeed, the flow of Achelooos river is determined by the existing dams (Kremasta-Kastraki-Stratos). NEMC is responsible for these dams and uses them for power production purposes.

- The region's lagoons, especially the Mesologhi lagoon, are not seriously affected by the total quantity of water the river discharges, on the other hand being subject to other interventions and charges so far suffered.

- A most important factor is the existence of river's minimum constant flow during the year, for the habitats and the whole ecosystem to be maintained. It is sure that all problems can be dully confronted provided a proper management of the water resources is effectuated, the necessary protective measures are applied, certain correction interventions are adopted and infrastructure works, indispensable for the region's further development, are completed.

- Therefore, considering the possibilities of important improvement of the actual situation, the Study group does not value the decrease of 20% of the Achelooos water destined towards Thessalia after the diversion to be a critical surcharge, because the whole problem could be confronted by means of remedial measures the same group proposes. This is right and true, because there really exists the possibility for the river to maintain a constant flow and the ecosystem to be preserved though the total quantity of water decreases, provided a reasonable management takes place. The more insisting and systematic are the proposed measures, the more spectacular will be the improvement of the actual conditions of the Achelooos delta. Having studied the matter and followed the above directions, the competent Ministry of Environment and Land-planning has by virtue of decisions nos. 16058/91 and 61414/21.4.92 (about approval of environmental condition concerning the execution of the diversion works) taken remedial measures for the environment, applied throughout the

region affected by the works, i.e. Acheloos delta, Mesohora, Sikia, diversion tunnel, Pili and Mouzaki.

As for irrigation and fish culture and the economic consequences deriving from the decrease of water quantities flown in Aetoloakarnania, we must note that this opinion is erroneous, the region disposing of a surplus of water, which, after being exploited for power production purposes, is emptied into the sea. The same will keep on happening even after a 20% of this water is directed to Thessalia due to the diversion, since the region's needs do not exceed 2 billion million m3 and the water quantity shall remain about 3,5 - 4 billion million m3 after the diversion.

On the other side, Thessalia faces severe environmental problems, the consequences arising from the deficiency of water being very important for the regional but also National Economy.

We state the lowering of the subterraneous water level. The farmers actually effectuate high cost water drawings from depth of about 200 meters or even deeper, the consequences being surcharge of the production cost and simultaneously decrease of the production rates. There are also negative effects on the ground firmness, due to the extraction of fine grain material water drawings imply, as well as severe effects on the region's fauna and flora.

- The Pinios ecosystem nearly collapses, the water supply of Pinios river being critically decreased during summer.

In wide sections, the river is incapable to self cleaning and its water is undrinkable.

The irrigation of the city of Larissa is already based on water drilling, facing a great possibility to be deprived of water.

Despite the biological cleaning works realized in the greater cities of Thessalia, the river pollution has reached high levels, the river delta being almost destroyed by lack of water and man-originated activities as well.

Considering the above, it is obvious that the problem Thessalia is now facing is not a water resources management problem but literally a water deficiency problem. The only way to surmount said problem is the work of the diversion of the upper Acheloos river towards Thessalia.

We believe that we shall all agree with the above position, because it constitutes the only choice and favors the progress of Thessalia, Greece and the Community.

Larissa, 7.5.92

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