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SYRIA

FOREIGN FIRM HELD RESPONSIBLE FOR CANAL FLAWS

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/Article by Salma Karkutil: "The Al-Balikh Canal in the Euphrates Basin: between the Spread of Cracks and the Practices of the Foreign Supervising Firm"/

 $/\underline{T}ext/$ The Canal's al-Balikh name is an odd one, and the circumstances and things to which it has been subjected so far are more odd. The obstacles and the reasons for the delay in the construction of the al-Balikh Canal, or the lower bridge canal, which will provide irrigation water for the pilot project land and the al-Balikh project, are not attributable to technical causes related to the nature of the soil or difficulties with the construction, but rather to the circumstances which have accompanied it. We will try to examine these closely through this report.

We have written about this canal previously, a number of times, and have observed it closely, from the time it was an idea on the verge of actually coming into being after the inauguration of the Euphrates Dam

Then /we observed it/ when the idea turned into a project in the process of being constructed.

Then the mishaps started. As soon as a beginning was made on the soil work, work was suspended for reasons related to the diversion. We noted that at the time. Then, under specific pressures exerted by the bank doing the financing or the bodies which advanced it, the blessed Raku machine, which was to pour the canal and construct it in the shortest time, arrived after a delay of more than a year, under the supervision, however, of (Girser), a French consulting firm which performed studies on the lower Euphrates Valley and the entrance to the main canal.

This is a summary of the condition of the canal and the crises to which it has been subjected, which have delayed its construction for more than 3 years The start of construction of the canal was delayed until the financing party brought in its strange machine, the Raku, setting out conditions for providing equipment which we faced with an appropriate solution. We accepted the French supervisory firm, which was more concerned than we were over our own interests and "the good name of the machine." When the General Land Reclamation Company was created, it was assigned the tasks of completing the canal and starting work on speeding up the construction of the canal, which was to irrigate 100,000 hectares. A new stage began.

Is the Dream Developing Cracks?

Today, by which I mean the day I reached the city at the dam, work on the canal had been suspended once again. On the basis of ambiguous statements and talk, it appeated that the canal was faced with a big problem and that a high-level committee had come to discuss conditions in it.

With a statement that had the impact of a thunderbolt, they said:

"The al-Balikh Canal has developed cracks."

I now understand the hesitation which appeared in their eyes prior to the discussion, and I understand why they evade the subject. This was not out of fear that the news would leak out, but rather out of compassion for a dream which we were "racing with time" to realize and had almost believed we would attain.

The canal was the pioneering experiment in eliminating the errors of the pilot project, for it to develop cracks if that actually happened, would mean a real catastrophe. Therefore, they hesitated to talk, and I myself hesitated to write about it. However, there are numerous sides to the matter. Lest I anticipate events, let me say that the first thing that could have been done was to see what had happened, if it had actually happened.

Did the canal actually develop cracks? Has the dream turned into a nightmare? What do you suppose the reason was? Was it the lime, again? Was it an error in construction? What is the problem that demanded that a committee headed by the minister of irrigation come to the area?

In the Office of the Director of the Reclamation Company

My first stop was with Eng Muhammad Khalayili, the manager of the General Reclamation Company, which is carrying out the project.

/Question / Is it true that the canal has developed cracks?

He said directly and without introduction, with an impetuosity that contained a mixture of positiveness and denial at the same time:

"The canal has developed cracks, the canal has flown away, they say that no canal is left."

I did not understand the significance of what he was saying at the outset. I thought that perhaps he wanted us not to talk about it. The collapse of the canal meant disaster, it meant failure, it meant that if the collapse was due to bad construction we were not capable of performing difficult work.

This in my view is not possible, that we should not be capable of performing work of this kind, which seems trivial in the face of the construction of a dam like the Ruphrates Dam, especially since the company has engineers who had previously worked on the construction of the Euphrates Dam and land reclamation and have more than 25 years' experience today.

There was no room to make a further request for information. Eng Khalayili hurried to tell me:

"Go and look. However, I want to state a point. We are carrying out a great new job, and it is possible that it could come up against problems before the construction. That does not mean that we have failed or that we will fail. The important thing is to achieve positive results to correct errors and become familiar with new things. Reclamation is something new as far as we are concerned; it has its particular characteristics in each area and its problems all over the world. In Iran they have their problems, and the same in the Soviet Union. However, this does not mean the suspension or failure of reclamation; there are some cracks in the canal as a result of a mistake in estimating spaces in the expansion joints, in our opinion; others have other opinions. However, the important thing is that that happened before water flowed into the canal; if a catastrophe had occurred, it would have been after the water had flowed in. In any event, you can visit the canal and observe whatever you want."

Quiet in the Canal

I arrived at the project management site. The customary activity was not to be found; normally, this place is a beehive of cars, workers, voices and movement, but today everything was still.

In the wooden chamber, the "barracks," where the project management was, Eng Faruq Abu Juday' was sitting at a table which normally hosted intensive meetings. The room was quiet, the table was devoid of its daily visitors and work had been suspended.

Would one suppose the cracks were the reason? Don't people work, if that is the case? Numerous questions passed through my head before I learned that the reason for the daily suspension was the expert with the French supervising firm. That was the third day in which people were not working because the French expert had found, on the first day, that the Raku machine was suffering from buffeting and suggested that the work stop. The company objected to that; the machine was not suffering from any breakdowns. A committee was formed on the second day and it inspected the machine. There were no breakdowns in it, and the committee conveyed that to the French expert.

He looked over the machine and backed down from his decision, and on the third day suggested that the pouring of concrete be resumed in the Raku machine; thus, 850 workers would go back to work on the fourth day. The notice to come back to work arrived late. Today, I did not believe what I was hearing. There was whispering that the supervisory firm was unfair in its position toward the workers in the al-Balikh Canal, but I did not imagine that this would mean that suspensions of the work would impose an egregious loss upon us, the suspension of work of 850 laborers in addition to the delay in the construction schedule and the French experts' wages. The important thing, lest we lose the first subject, was that we follow up on the details of it then go back to the problem of the company and the French supervisory firm.

Viewpoints

Eng Faruq Abu Juday' told me:

"As far as we are concerned, we cannot suspend the work because of the cracks; even if some places have in fact developed cracks we cannot stop. So far we have completed 50 percent of the canal and it is not logical to stop."

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What is the cause of the cracks in the canal?

Eng Faruq said:

"The canal developed cracks in two places and swelling was observed in three spots. However, the cracks are minor and can be repaired. We have studied the matter as a construction company and considered that the error lies in the expansion joints. That can be attributed to a poor appraisal by the designer of the temperature conditions in the area. We constructed what we received approved by the Land Reclamation Organization, the employer, and do not feel that there is any problem related to the technical specifications of our construction, especially since the supervising firm inspected a great deal and went overboard in that, stopping at every point which it considered the situation to the committees that had been formed to study the issue and causes of the cracks, and they in turn took the opinions of all the experts who were present in the area and are working in reclamation. By now they must have prepared their report, which will contain appropriate solutions."

/Question/ What was the French firm's opinion?

/Answer/ The French expert said that the cause was the rainwater which had leaked in under the cement, creating the swelling and cracks. However, the phenomenon occurred only from the location at Kilometer Six on out, and not all over the route of the canal. It occurred in limited spots in a single area, as I stated; no more than 2.5 millimeters of rain fell, a quantity which is almost not worth mentioning and could not cause any phenomena of

In addition, the expansion joints disappeared at these spots and the cement areas adhered to one another.

The French had prepared the design without considering the hot nature of the region, where the sun's rays raise the temperature to more than 50 degrees centigrade sometimes. The cement in the canal is on a smooth surface and not directly on the soil.

At the locations of the cracks and the swelling, the technical details are numerous; in order not to become lost in complex technical matters, let us go look at them.

After a rew minutes in the car alongside the canal, which has started to resemble a long, dry, smooth, clean river of cement, the car stopped, and Eng Faruq pointed out:

"Here, at this location, there is a fracture. We have removed the tiling to make sure of the integrity of the sheets, and we did not find that they had sustained any damage."

We went on, then stopped again. One of the people at the bottom of the course of the canal was busy taking measurements at a spot from which cement had been removed.

At this spot, there was a swelling. A Soviet expert from Maskanah was studying the fracture before giving an answer. We consulted with them for further confirmation.

We visited the three areas of swelling and the sites of the fractures. The fractures were not as I had imagined or as I had sometimes seen in the pilot project. Some of the cracks were in tiles which had been attached to other tiles.

Lest I express an opinion which requires a specialist, which I am not, let me go beyond the description and state that we returned to the canal project management site to talk about other problems the canal was suffering from, first the shortage the industrial activity sector is suffering from and its shutdown because of the unavailability of primary materials. With that matter, things became aggravated, as is said. Work remained suspended on the canal because the sheets and manufactured bricks were not available for a total of 100 days of work, that is, the equivalent of 50 percent of this year's schedule.

The Firm Is Delaying the Project

Before talking about the supervising firm, whose conditions and obstruction of the work was discussed at length in the meetings the special committee held under the chairmanship of the minister of irrigation, which was not without differences in views at times as I learned, these were presented with some harshness, which could be attributed to the feeling of many employees who were distinguished for their nationalism, activity and competence in work, of scorn and sometimes contempt for the position of the French experts and their delay of the project:

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With the Director of the Land Reclamation Organization

The important thing is that I state that it was necessary to see the employer; the employer was the Land Reclamation Organization, the owner of the project, while the Land Reclamation Company was only the one carrying it out.

Eng Taha al-Atrash, director general of the Land Reclamation Organization, spoke to me at length about the reclamation problems, citing as evidence the problems the pilot project had faced and the government's attempt to find feasible approaches to reclamation problems by holding the work conference on reclamation problems. He stated that the most important conclusion the conference had reached was to appeal for reliance on local expertise, because it was better able to recommend solutions and deal with problems. He considered that the foreign bodies that have operated or are operating are roughly equal in their treatment in the study of irrigation projects, since they rely on the experience of people who have studied in their own countries, along with scientific publications and books which come out regarding irrigation and land reclamation.

After that, he then went on to say:

"The cracks which have developed at the entrance to the main canal in some tiles of the lining are not unusual compared with similar cracks in other irrigation projects in the area or elsewhere, because concrete is a compound which supports the soil and is exposed to various elements of weather, in the form of heat and cold. This all results in its being affected and in the emergence of reactions. We in the organization and in the company have carried out a study of all the phenomena with the consulting firm, and we have set out some solutions and have added some precautionary measures to the execution of the work and the work itself in order to avoid the cracks and the disruption they cause as much as possible.

An Intermediate Solution

When I met Eng Taha al-Atrash, solutions had been found to the crisis the canal was suffering from, it appeared, although they seemed to be compromise solutions based on the principle "things are going along." The crisis in reality was not totally the development of cracks in the canal; rather, this was a symptom of the crisis. The real crisis was in the practices of the (Girsar) firm which was supervising the project and had come to pose an obstacle to the progress and orderliness of the work, with the reasons it had invented for stopping the pouring and delaying the construction of the project. This is aside from the problem of the supply of requirements for constructing the canal; once the needed materials were supplied, the French expert, who receives 40,000 Syrian pounds a month, came and stopped the work for a period of 3 days on a pretext whose invalidity has been established. This is not the first or last of the practices which they talked to us about, whose likes many of us are familiar with in other projects, since biased bodies are constantly trying to delay the construction of the projects through so-called supervising firms in order to be entitled to payment

before the project enters the stage of operation, as a means for exerting pressure. In addition, these consulting firms may not bring in people with real expertise but rather people who are getting practice in our projects, on which we build the hopes of generations to come.

Nothing gives more proof of that than the engineer, the expert, who was brought after the days had been scheduled and arrangements had been made to benefit from his peerless expertise while I was present in Madinat al-Thawrah. Here is an expert who is no more than 25 years old and who in the best of cases has graduated no more than 3 years ago.

At the same time, another expert, in the committee meetings held to solve the problems of the relationship between the Reclamation Company and (Girsar), is permitting himself to direct contempt at engineers who worked on construction of the dam and have spent precious years of their lives on reclamation and construction sites, attached to this work only by their desire and commitment, and considered among the best of the country's expert technical personnel.

The discussion is lengthy, but the canal, today, is in a quandary. Perhaps it has emerged from it to some extent now that an intermediary committee has been formed which will be in charge of transmitting observations between the (Girsar) expert and the Reclamation Company. I believe that this conciliatory resolution was reached only as a result of a conviction on the part of all bodies that the supervising firm had committed excesses. Does this, however, mean that the problem has been solved for good? Would you consider that that will not mean obstruction of the work and the schedule? We do not know. However, I personally believe it will; how much time does one suppose this expert, who gets more than 10,000 per day, will take to inform the committee assigned to study his views? How much time will this committee need to study the validity or invalidity of his observations? How much time will pass in order for these observations to reach the company doing the con-

On another hand, who is more concerned over the canal, and who is more closely linked to the land and knowledgeable about it?

Perhaps experience will be of benefit to us, finally, and we will not succumb once again to the clutches of the supervising firms or the conditions of biased persons. We are the most concerned for our nation and are the best able to carry out our work. Even if we sometimes make mistakes, that is important; otherwise, experiments have no value and history has no value.

Let us move on, leaving the area of sandstorms and intense heat, leaving them to work in spite of the problems they are sometimes suffering from; they will be working as long as there is a chance to work.

They want nothing more than that.

"Let us work; we want nothing more than to work, without delays and without the invention of unfounded problems."

This is what they say and what Eng Muharmad Khen And has asserted in the course of conversation. The issue is not a problem of technical specifications. The problem which is subjecting the canal to confusion is a national one in essence. Therefore, it calls for more than interest and the holding of meetings. A day must come in which the most correct decision will be adopted, which will mean our confidence in our own ability and faith in technical staffs who are the children of this land, connected to it and to its deep roots in the depths of its soil.

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