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Intrigues, Rivers, Dams and Navigation. A Parallel Study Of Aswan High Dam and Iron Gate System

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Abstract

Two technical construction are put face to face. Two big construction which changed the conditions of navigation, pursuing in the same time energetical objectives are compared. The construction of one of them become the center of a global crisis implying conflicts and big powers' intervention; the construction of the other one started a process of bilateral negotiation with regional significance. Both of them regard two vital interests of every state and society, with implication in the area of *civilization: transportation and energy*. But if on the Nile the construction implied social movements and war, the fulfilling of Iron Gate System stands as an example of collaboration for the construction of a common project, for the benefits of all those implied in its construction; and it would be good for us (and for humankind) that in this moments, when we are aware of common interests and of advantages brought by their attaining in common, to look at the fulfilling of this System like at an example, in order to build together a more civilized Europe and a better world.

Key-words: common interest, political independence, navigation, energy

First the Nile river. This river has 6,825 kilometers in length, from its spring in Tanzania—Luvironza river—to Mediterranean Sea, cross nine states' territories and it is the most important running river in Africa. What is characteristic to this African river is the fact that its navigable parts are situated entirely in the different riparian states, without that any navigable portion from one country extending in the neighbor country. This fact eliminated a potential source of conflict among countries form the Nile river basin, which would have appeared as a result of the states' desire to ensure (respectively to limit to others) the free navigation on this river which cross so many territories. On the other hand, this hydrographical characteristic impedes links' establishment among its riparian states and severe limit their possibility to make trade; and this is amplified by the absence of efficient road or railway transport system in those African countries. So we can say that they were (and still they are) relatively isolated from one another, with all

negative consequences resulting from this.

The Nile Delta (between Alexandria and Damietta) is situated entirely on Egypt territory—which is the most powerful state from the Nile basin from military and economical points of view. Nevertheless, the Egypt's life depends so much on this river's water that, without it, Egypt would stop to exist as a state. No other country in the world is so dependent on only one river's water which it must share with another eight states. That for, we could say that for Egypt geography—and more specific, hydrology—is a national destiny. Around 96% of Egyptian population lives in the narrow Nile valley and in its delta area, on 4% of Egyptian territory.

Taking account these things, there was the necessity regarding the elimination of every possible risk regarding any situation which could exert an ill-fated influence on this country. And as the entire life of Egypt depends on the Nile river waters, there was necessary to eliminate the risk regarding reducing of the available water quantity. We must mention that Egypt was an area with special interest for Great Britain; its control on Egypt means control on all riparian states and in the same time Egypt being a strategic base for maritime link between England and India. Canal of Suez—through which transit big oil tankers and which is for Russia the same thing which is for USA the Panama Canal—links Mediterranean Sea by Indian Ocean and this link couldn't be regarded separately from the same country—Egypt—which push it on a very important position in the Middle East geopolitical equation, and played for these reasons a special role in the confrontation among big powers. That for, big powers and their allays sought to attract Egypt on their side and for this they resorted to economic and military incentives. Taking account of the Egypt's dependence on a fresh water reserve, countries which sought to attract Egypt on their side started to look for solutions which could satisfy this vital interest of the Egypt; and on this basis they wanted to rise their influence in this state (and through it in entire Nile's river basin), conditioning and linking their financial support—because Egypt didn't possess financial resources which could have been directed to great investment projects—by the Egypt's rapprochement to the part which would finance a project regarding the security of this Middle East warm country regarding its need of water.

As Gamal Nasser came to power in Egypt in 1952, his first desire was to build an infrastructure project—and to create a fresh water supply reservoir—its place being situated entirely on Egyptian soil. In that period, in Canal of Suez area there were stationing British troops and the young Egyptian leadership felt the need of exerting their national sovereignty and to assure their national territory's integrity (movements registered in that moment's decolonization process stream) and as a result, Nasser wanted to demonstrate these to Egypt's citizens and to entire world, too; the fulfilling of a great project which could transform Egypt in a modern and industrial nation appeared in those moments to be the most important aim for Egypt and—taking into account the country's hydrographical characteristics—such a project would focalize on the

Nile river. The Cairo's intention regarding fulfilling of such a project had as basis the reason that after its construction, it would ensure a fresh water supply in Egypt, for Egypt, it would bring safety in food production area, it would supply electrical power to future industries, it would push Egypt on a favorable position in comparison with the other Nile's riparian states in establishment of water quotas for every state and it would contribute to the improvement of conditions of navigation on the Nile between the Aswân High Dam and the Mediterranean Sea, where there were situated the Egypt's tourist places which could be capitalized and turn out from isolation in this way. Although there was manifesting a powerful opposition on internal and international arenas vis-à-vis the social, economical, environmental and political impact of the dam's fulfilling, its construction constituted to itself a gigantic symbol regarding the long request for sovereignty, for national security, for technical realization and for economical prosperity of Egypt. As a result, Nasser began to look for international funds; in the beginning, he tried to obtain the necessary amount of money at World Bank, which—took into account the international climate of those moments—wanted to finance just the studies and plans; in the same time between Cairo and London were carrying on debates regarding British troops' evacuation from Canal of Suez area, but it is noteworthy to mention that since 1948 there had been set up by Occident an embargo upon Egypt regarding its trade with military material. And as Israel army initiated in 1955 raids against Egyptian army in Gaza Strip, the Egypt saw the solution of embargo in its rapprochement to USSR, which would furnish to it military aid and military material. So after only two months from the Geneva's meeting between Eisenhower and Khrushchev, USSR sold a big amount of armament to Egypt for its cotton overproduction, move through which USSR surpassed the cordon sanitaire imposed by USA around USSR; as a result, the West searched to prevent losing Egypt to the Soviet influence and a solution for this was the British-American support for Aswân High Dam project's fulfilling; in December 24-th 1955, Great Britain and USA made an official offer for the dam's building, in two steps: one part of funds would be available immediately for preliminary studies and the second one regarded the effective dam's building. USA would follow to support 90% of the needed resources.

But in May 16-th 1956 Nasser proceeded to diplomatic recognition of PR China and established diplomatic relations with Chang Kai-Shek's government, gesture which woke hostility at White House, which was committed to Taipei; this action was quickly followed by a visit of—then Soviet Foreign Minister—Shepilov, in Cairo, which made an offer for finance *and* construct the desired dam. These gestures resulted in the cancellation of promised western help. Seeing this action as an attempt to humiliate his country and the regime in Cairo, Nasser proceeded to the Canal of Suez's nationalization (July 26-th 1956) in order to demonstrate that his country is independent and sovereign on its entire territory and the taxes which would be imposed at the passage of vessels through canal would be directed to create financial resources from which would be financed the dam's construction; and Nasser made all this things appealing

to Arabian nationalism. These maneuvers precipitated the events in Suez area as England and France sought to keep on their control over canal and as a consequence both of them send troops in Egypt in autumn of 1956; but they weren't sustained by USA when USSR warned them and USA put pressure on them to stop the attack against Egypt. In this way the Suez Crisis put an end to the high status' rank of GB and France; and Egypt entered the soviet sphere of influence and staggering Washington, USSR replaced the occidental help for dam's construction with russian help. As a result, Eden asserted in a telegram sent to Eisenhower that "there is no doubt in our minds that Nasser is in Russian hands now."

Built with soviet financial aid and on soviet model, the Aswân High Dam has a 10 billions KW/h energy production capacity; its building started in 1961, after there was concluded a bilateral agreement with Sudan (which won its independence in 1956) regarding: the division of water's quantity from the lake which would follow to appear as a result of dam's construction; the possibility for Sudan to build dams on the Nile river and on its tributaries, on its territory; compensations' payment amounted at \$ 43 million paid by Egypt to Sudan, as a result of plots of land's flood and dislocated population. This bilateral agreement was concluded in 1959 and on its basis there appeared the Permanent Joint Technical Commission, but there weren't mentioned any specifications which would take into account the other riparian states' requests and their interests. The dam's construction ended in 1968, but the project didn't work at its entire capacity until 1975. In 1974 at Aswân there were produced 4.4 billions KW/h, which meant over 50% from Egypt's energy consumption. Although the Aswân High Dam cost over \$ one billion, its width being 980 meters at the ground and at the top 40 meters and its total volume is 43 million cubic meters, its installed power is only 2,100 MW, because there the water falls down a little in the lake Nasser area, reducing in this way the Nile's hydropower.

And now, the comparison between the Aswân High Dam and Iron Gate System:

Hydro-geographical aspects: Nile flows through extreme arid area and pours out its waters through a delta situated on the only one state's territory (which is the most powerful state in the Nile basin), Danube flows through a temperate area and pours its waters in the Black Sea through a delta where there Romania is neighbor with Ukraine (then USSR), and the most powerful states are situated near its spring.

Technical aspects: both constructions are signs of technical progress and attainments with implications in civilization sphere; the period of time necessary for Iron Gates System's fulfilling was a little over 7 years (1965-1972), but the Aswân High Dam imposed works extending over 14 years (1961-1975); the high of Iron Gate Dam is 40 meters and its length is 1,050 meters and its place is where Danube flows through mountain area (reducing in this way the damages which resulted after its construction), but the Aswân High Dam is three times taller and five times longer than Iron Gate Dam, and as a result the effort fallen for obtaining the same power is much

bigger on the Nile than on the Danube—for the same effect Egypt must make an bigger effort than Romania and Yugoslavia taken together; although, the power installed in hydropower plant at Iron Gate is the same with that one obtained at the Aswân High Dam (2,100 MW) and the production of electricity is the same in both places (10 billion KW/h) and this is due to the fact that in the Iron Gate area, there is present an important water decay, rising in this way the potential of energy on the Danube; these things make the Iron Gate Hydropower Plant to be one of the most efficient and favorable hydropower plant in the world, because the effort made for the obtaining of immense quantity of energy is small in comparison with the effort made by other states in order to fulfill projects with similar hydro-electric characteristics.

Financial aspects: the *funds* for Iron Gates System were obtained in equal quotas from Romania and Yugoslavia—each one contributed with half of the amount of money necessary for the fulfilling of investments regarding electricity production (\$ 315 million)—but Egypt had to support alone all the construction's costs; the Russian financial aid contributed to surpass this impediment, which resulted in the reducing of living standard in USSR and in the others states belonging to communist camp; the *effort* for the Iron Gates System's construction was a very huge one and it was supported by all the countries situated on the Danube river, the part regarding electricity production was insured in equal parts by Romania and Yugoslavia, whereas the part regarding the improvement of navigation's conditions were supplied by all riparian states, but the Aswân High Dam's construction was supported by only one state—Egypt.

Economical aspects: both of them were constructed for the purpose of supplying the desirable energy for their national economy's industrialization.

Aspects regarding navigation: Egypt was the only state which benefited from the Aswân High Dam's construction, as it could promote its navigation on the Nile; improvement of navigation's condition on the Danube brought benefits to all its riparian states; in the case of the dam's fulfilling in Egypt, there were taken into consideration only of Egypt's and Sudan's interest (the others riparian states being avoided in the consultations regarding this construction), but in the Iron Gates Hydropower Plant and Navigation System's case the researches and studies started being taken into account the interests of all Danube's riparian states regarding the insurance and guarantee of liberty of navigation on the Danube, while there was constructing the System and after its fulfilling (*here we see cooperation*); on Egypt were focalized all big power's eyes and the construction of Aswan High Dam is tied to a huge global crisis (*here we see self interest and unilateral decisions and movement* on the part of big powers and Egypt itself).

Legal aspects: if on the Nile there hadn't existed a regime regarding the navigation—due to the fact that there wasn't any navigable portion of the Nile which would be situated on more than one states' territory—on the Danube, there have been existed an unified international regime from Ulm to Sulina (and even the Danube Convention foresee the necessity of works' realization

for the improvement of navigation, and so, the Iron Gate System's construction was asked indirectly by all the Danube riparian states); on Danube, USSR political willingness—which took account in that moment, for political reasons, of the emancipation of nations from Danube river basin—determined the change of the juridical framework regarding the Danube river for the good of all its riparian states, pushing all of them to cooperation in order to eliminate all impediments regarding navigation on Danube. Iron Gate System reflects the political willingness of regional actors to stimulate regional traffic in Danube river basin, their desire to work together and collaborate, even if not all of them belonged to COMECON or Warsaw Treaty; and the dam presents the technical and scientific level attained by the two neighboring countries, proving in the same time to all the world that between them there were friendship relation and a policy of a good neighborhood.

Military aspects: Iron Gates System's construction contributes to the rising of defence capabilities of those neighboring countries, but the Aswân High Dam's construction—even if it offered to Egypt a social and economical security—rose its vulnerability on strategic field (a military strike upon it would mean the destruction of all things along the Nile river, from Aswân to Mediterranean Sea).

Political aspects: if for Romania the System's construction was a sign of political independence in relation with Moscow—reducing its dependence on Russian energy—the fulfilling of the Aswân High Dam—although it was initiated as a movement of independence by a colonial country—imposed the existence of big financial resources (the amount of money necessary was over \$ one billion) and as Egypt didn't possessed so much resources, it was obliged to look for funds from international organisms, but they refused to loan money to Egypt and as a result, it accepted the condition imposed by Moscow, becoming a Russian “satellite” through which Russia could influence the Middle East affairs.

As a result:

1. the studies and researches for the fulfilling of Iron Gate System were done *together* by people from the neighboring countries, the “heads” of the system being situated on the Romanian, respectively Yugoslavian banks and the construction of the system was realized together by those two countries, the Aswân High Dam is located exclusively on one country's territory—Egypt;
2. at Iron Gate System's construction there participated only romanian and yugoslavian specialists, but the construction of the Aswân High Dam was made by russian engineers and constructors;
3. the running of Iron Gate System is made *together* by the two neighboring countries, but the running of the Aswân High Dam is made only by Egypt;

4. the Iron Gate System's fulfilling showed to the whole world the good neighboring policy between the two states, at Aswân Egypt looked for overrunning the Sudan's objection through negotiations, without taking into account of the interests of others riparian states on the Nile and in this way the dam on the Danube put the basis for future cooperation between those two states and among others riparian states on the Danube (because of improving of navigability's conditions), but the dam's construction on the Nile contributed to the rising of complexity's situation in the Nile basin river;
5. Iron Gates System wasn't criticized by other states—except by Moscow, which saw the project as an instrument through which Romania would escape from its sphere of influence—the Aswân High Dam project was and still is the most criticized dam in the world (it created big social, economical and environmental problems in the whole Nile basin).

This could be a very good example for European policy men when they intend to create a strong Europe: this political entity could be strong if they could identify common interest in infrastructure areas, starting cooperation in common infrastructure projects which would contribute to rapprochement among them and through interdependence's rising due to infrastructure's integration, they would link EU with very strong ties. And cooperation in dams' building and navigation's improvement are parts of the important present stream regarding the protection of the environment and climate change. Dams could supply energy without pollution and navigation's improvement would reduce CO2 emissions due to transportation. Put in another words, *environment, economy and peace can go hand in hand.*

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