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THE TRANSAQUA PLAN FOR AFRICA

EIR Brings Transaqua Plan, BRICS to Lake Chad Event

by Lawrence Freeman and Donielle DeToy

Dec. 1—For more than 30 years, the gigantic water project known as "Transaqua," which would refill the shrinking Lake Chad, revitalizing a body of water on which 40 million Africans depend, has been placed before all international development agencies as well as the nations of the region. Yet, over all this time, not one feasibility study has been carried out. The de facto financial diktat against great projects, exercised through the international financial institutions and the mis-named environmentalist movement, has taken it off the agenda.

Fortunately, in the context of the growing optimism created by the BRICS nations, which have vowed to fund huge infrastructure projects in the developing world, that boycott is beginning to be broken.

On Nov. 17-18, the inaugural meeting of the International Scientific Committee, established to advise the

Lake Chad Basin Commission (LCBC),(1) was held at its

headquarters in N'Djamena, the capital of Chad. EIR's Lawrence Freeman(2) and Italian engineer Dr. Marcello Vichi, intervened to expand the prevailing limited view concerning the urgent strategic necessity for refurbishing Lake Chad.Dr. Vichi, who drafted the original proposal in the late 1970s for the great Transaqua water infrastructure project, which would transfer a substantial amount of water

from the super-moist Congo River Basin to the arid Chad River Basin—published under the title "Transaqua: An Idea for the Sahel"—wrote a letter, delivered to members of the committee, provocatively challenging them to take up the fight for Transaqua (see below). Noting that the project has been slandered as "utopian" and "megalomaniacal," Vichi said:

- "Allow yourself one moment of megalomania.Do it in the interest of your children and grandchildren."
- 1. The Lake Chad Basin Commission was formed in 1964 by Niger, Nigeria, Cameroon, and Chad. In 1996, the Central Africa Republic joined, and Libya became a member-state in 2008
- 2. Participants appointed Kostoingué Bouguyana, lecturer at the University of N'Djamena, as chairman, and EIR Africa specialist Lawrence
 Freeman, as vice-chairman, of the International Scientific Committee.
 The executive secretary of the LCBC, engineer Sanusi Imran Abdullahi, also spoke on both days of the session on the importance of studying the Transaqua proposal (see below), and requested that the International Scientific Committee respond to Dr. Vichi's letter. The current rationale on how to prevent Lake Chad from drying up even further is dominated by simplistic practicality about conservation and managing the meager existing waters of the lake and its tributaries. Freeman challenged the other participants to reject the prevailing zerogrowth mentality, and instead think about the potential that a great infrastructure project like Transaqua would have in transforming the economies and environment of all the countries involved, from the Great Lakes Region to the Sahel. He also encouraged the commission to look for collaboration with the BRICS and its New Development Bank, as the West has no interest in funding infrastructure projects for Africa.



Transaqua will bring approximately 100,000 cubic meters (81 million acre feet) of freshwater from the Congo River Basin, through 2,800 km of navigable canals, to Lake Chad

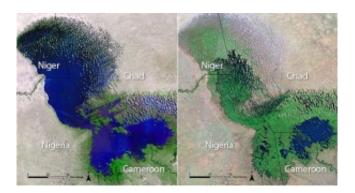
Will Lake Chad Disappear?

Lake Chad is a freshwater lake located 13° latitude north and 14° longitude east in the Sahel. The total drainage area of the hydrographic basin is almost 2.4 million km2, about one-eighth of the land area of the African continent. The hydrologic basin, which encompasses all the tributaries, is 967,000 km2, an area larger than the states of New York, Virginia, and Texas combined. It is the fourth-largest lake in Africa, behind lakes Victoria, Tanganyika, and Nyassa (Malawi), but is extremely

shallow, from as low as 1 m to a maximum of 12 m, and suffers from a severe loss of water through evaporation due to the hot, dry climate. Lake Chad, which is thought to be the remnant of an inland sea that existed 13,000 years ago, is reported to have been as large as 1 million km2, in 6500 B.C. after the last glacier melt, and 400,000 km2 in 4000 B.C. It was considered to be one of the largest lakes in theworld, but since 1963, has shrunk by 90%, from a surface area of 25,000 km2. While many estimate today's size of the lake, which consists of northern and southern pools of water separated by large sand dunes called the Great Barrier, at less than 2,000 km2, Mohammed Bila, a geologist who has been examining surface waters through remote sensing for the LCBC since 2004, believes that due to heavy rains in 2012, the lake may now be as large as 4,500 km2, with some water in the northern pool for the first time in many years. The measurements of the lake region are done in collaboration with NASA's MODAS satellite which provides 250-km resolution images of the basin four times a day, and Germany's Federal Institute forGeosciences and Natural Resources (BGR), which measures rainfall and groundwater. Tracking life activities on the lake and surrounding basin area is also done in coordination with Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GmbH).

Rainfall varies greatly from the northern portion of the Lake Chad Basin in the Sahara Desert, with as little as 100 m, to as much as 1,000 m at the southern edge—the Sudanian zone. Most significant has been the decrease in rainfall in the Sahelian zone, the central and largest portion of the basin, as well as a decrease in water flowing into the lake from its major tributary. The Chari River, flowing from the Central Africa Republic and the Logone River from Cameroon, join at N'Djamena, becoming the largest tributary, providing 90% of the lake's water, but its volume has decreased from 40 km3 to between 21-25 km3. The Komadougu-Yobe tributaries from Nigeria provide only a small portion of water flow into the lake Bila attributes the decrease in rain in the Lake Chad Basin to the southerly movement of the tropical conversion zone, which is where the cold air from Europe in the north meets the warm air from southern Africa, producing rain.

What Causes the Lake To Shrink?



There are unconfirmed reports that the lake had disappeared and then reappeared thousands of years ago, and that as recently as the first half of the 16th Century,

the lake almost completely dried up, demonstrating that the causes for the contraction of the lake are not anthropomorphic. However, we do not yet understand precisely

the complex causation of the lake's shrinkage. There are four layers of aquifers under the lake at varying depths: the Quaternary, closest to the surface, followed

by the Pliocene, Continental Terminal, and Cretaceous. It is also unclear what type of interaction, if any, there may be between the aquifers under Lake

Chad and the large Nubian Sandstone Aquifer System that spreads throughout Sudan, Chad, Libya, and Egypt. Although there has been an increase in rainfall over

the last 14 years, if there are more severe droughts like those of 1973 and 1984, the lake will dry up without human-engineered water transfer. Over 40 million Africans on the Lake Chad shoreline and its surrounding basin are directly dependent on its water. As the lake has diminished in area and depth over the last 50 years, the population has been forced tomigrate and adjust to even less tenable living conditions. Farmers and fisherman subsist on this shrinking body of water, with over 58,000 inhabitants, predominantly Chadian and Nigerian, residing on islands in the lake. They travel among the islands for trade, supplies, and limited education, some by long motorized canoes, or water taxis. Further complicating life on the lake is the water foliage, which has overtaken large areas of the basin. A program for dredging the lake, as a precursor to any water transfer, is scheduled to begin in 2015, but will be a monumental task.

Why Transagua Is Necessary

Restoring Lake Chad to its previous surface area will not only improve the lives of the 40 million Africans directly dependent on it, but is critical to stopping the desertification southward. Transaqua proposes to capture 5%—100 billion of the Congo River's 1.9 trillion m3 of water—that flows, squandered and untapped, into the Atlantic Ocean each year, and instead redirect it north through a 2,400-km navigable canal east of the Congo River, northwest across the Democratic Republic of Congo (DRC) to the Central African Republic (CAR), meeting the Chari River, which would release this additional volume of water into Lake Chad. This infrastructure project would provide an indispensable feature for a new platform of development in agricultural, industrial, and electrical production, andtransportation, affecting up to 12 African nations, thus transforming a large portion of the continent. This peace-throughdevelopment approach would contribute more effectively to dealing with the root causes of the growing insurgencies, such as Boko Haram, in the region, than simply employing counter-terrorism security measures. Abdullahi was correct when he told a Washington, D.C. audience in August that if Transagua had been implemented 30 years ago, we would not be witnessing the horrors we see in the CAR today. Until now, there has been only minimal discussion of the much smaller Obangi water transfer project, which would only deliver 320 m3 of water per second, compared to 3,200 m3 per second with Transaqua. At best, the Obangi water project would add about 1.5 meters of water to Lake Chad, increasing its surface area by 7,500 km2. Moreover, the Obangi project would not have the same transformative effect on all the countries of the two basins, since the 2,400-km canal extending from the southeast portion of the DRC to the CAR is an essential feature of Dr. Vichi's proposal. Freeman requested that the International Scientific Committee study the feasibility of Transaqua and invite Dr. Vichi to present his vision directly to the Commission. These sentiments were echoed by Abdullahi.

Look East for Development

The donor countries, dominated by Europe, oppose any water-transfer project, and have made this abundantly clear to the LCBC. Prince Philip's World Wildlife Fund (WWF), the mother of the global anti-growth environmental movement, also opposes Transaqua. Although a study of the Obangi project is included in the

LCBC's five-year plan, it has not been pursed enthusiastically,

and there is no mention of Transaqua. As a matter of policy, the West will not support infrastructure development projects for Africa that would save lives, reduce poverty, and improve living conditions for tens of millions of impoverished Africans.

U.S. Assistant Secretary for African Affairs Linda Thomas Greenfield stated on the eve of the 2014 U.S.- Africa Summit: "We don't do infrastructure." Europe

and the United States have decayed morally, politically, economically, and intellectually; they have no vision for the future for their own nations, much less the rest of

the world. Their dying global financial system threatens to drag the whole world down with them. However, the outlook of the BRICS nations, exemplified

by China's construction of a New Silk Road Economic Belt, and their scientific endeavors in lunar exploration, have an ingrained commitment to economic progress, and a more optimistic view of the future. Freeman emphasized, during the two-day session, that this growing movement of nations, cooperating in grand infrastructure projects to economically develop their countries, are the natural allies of Africa, which should look to them for collaboration to make Transaqua a reality. LCBC Executive Secretary Abdullahi understands that thus far there has been a lack of political will and funds to carry out the necessary water-transfer projects. Intent on refurbishing Lake Chad, and improving life for all the countries in the basin, Abdullahi told EIR: "We need you to make our case known to all those who will listen and try to convince them the time is now."

Marcello Vichi

Transaqua Author Greets Lake Chad Basin Committee



Nov. 18—This message from Dr. Vichi was read to the first meeting of the International Scientific Advisory Committee of the Lake Chad Basin Committee, N'Djamena, Nov. 17 18.(1) 1. See Marcello Vichi "Transferring Water from the Congo to Lake

Chad: The Transaqua Project," EIR, July 22, 2011

Please accept a warm greeting by someone who, for more than 30 years, has worked to promote Transaqua among African countries concerned with a development

proposal: "An Idea for the Sahel." I was commissioned by the CEO of Bonifica [the engineering firm of the IRI-Italstat Group] to check out the feasibility for

the construction of a new "artificial Nile" able to transfer some cubic kilometers of water from the Congo River Basin (at that time it was called Zaire) to the Chad

Basin, rescuing the Lake from almost certainly drying out.

The first cartographic analysis and hydraulic studies confirmed the hypothesis that it would be possible to intercept about 100 million km3 of water from the high basins of the northeastern feeders of the Congo River, to pour into Lake Chad, through the construction of an approximately 2,400-kmlong canal, without using any power, exceptthe force of gravity. The group of experts was convinced that the "take-off" of the African continent could never take place by limiting interventions to many small projects, politically important, but almost exclusively for subsistence-producers. By withdrawing 100 million km3 of water from the circa 1,500 million km3, which, on average,the Congo River pours annually into the Atlantic Ocean, we believe we would also be compensating for a "natural injustice" which, in the face of one of the greatest wastes of freshwater in the world, condemned one part of Sahel to a progressive and increasing drought. Finally, we thought that the creation of more than 2,000 km of south-north waterway in the heart of the continent, the creation of an industrial "pivot" in the Central African Republic, and a possible east-west, "coast-to-coast" motorway connection between the ocean ports of Lagos and Mombasa, together with a major production of hydroelectric power for local use, were all elements worth at least being considered. This did not occur. Why? Because African countries themselves did not fully believe in the

"idea," and did not attempt to obtain from international agencies the necessary financial support to verify the technical-economic, social-political, and environmental feasibility of the initiative. It was not a matter of endorsing the project a priori, but just to determine its feasibility. Even though the feasibility study was never done— and its cost, using modern means, would be reasonable— the project has been viewed as a megalomaniac, pharaonic, utopian initiative. Dear participants, do not allow your initiative to become yet another lost opportunity. Play the "utopia card," because "utopian" projects—the Suez Canal was in its time no less "utopian" than Transaqua—are today indispensable for the continent, if equatorial Africa wants to really free itself from the burden of endemic indigence, and does not want to lose the race for global development which other continents have long since initiated. Some come to buy your resources, those resources that you have not been able to exploit to your advantage. Allow yourself one moment of megalomania! Do it in the interest of your children and your grandchildren.

What To Do?

I believe that unfortunately— but also luckily—finances move the world. Large multinationals are always ready to "cooperate" when they smell fat profits. One of the ways to go would be, if I may make a suggestion, the creation of an Ad Hoc Consortium among sovereign states, concerned with examining the idea of Transaqua (Chad, Niger, Nigeria, Cameroon, C.A.R., and whoever else wants to join), and address as a partner a Consortium of Multinational Companies (European, Chinese, Indian, American, Japanese, etc.), among the best known in the world for the construction of large projects in Africa. The two consortia, joined in a sort of mixed African foreign multinational company, could bring together the economic resources to promote a feasibility study and eventually, in case of positive results, a series of preliminary projects, then executive projects, and ultimately a schedule for the execution of works. It would be fundamental that the "founding partners" of the mixed company clearly share among themselves tasks and responsibilities, mutually ensuring the future activities of execution and management for at least the next twenty years. I am aware that the approach is neither simple, nor easy, but neither are the problems of the continent. In my view, it is worth trying.

Lawrence Freeman

Lake Chad, Transaqua Basis for New Africa

Below is the speech given by EIR Africa specialist Freeman at the inaugural meeting of the International Scientific Committee of the Lake Chad Basin Commission in N'Djamena, Chad, Nov. 17, 2014. Freeman entitled his remarks "Implications for Saving Lake Chad in the New Strategic Dynamic."

1. During the last 14 months, there has emerged in the world a new paradigm of thinking among a growing number of nations for cooperation in promoting long overdue economic development driven by large-scale infrastructure projects for energy, rail transportation, and water management. Highlights of this process are:

September 2013: China's President Xi Jinping announced the New Silk Road Economic Belt.

July 15-16, 2014: The Sixth Summit of the BRICS (Brazil, Russia, India. China,

and South Africa) announced the creation of a New Development Bank.

October 2014: Twenty-two nations joined the Asia Infrastructure Investment Bank.

Nov. 8, 2014: China announces the formation of the Silk Road Fund, in the run-up to the Asian Pacific Economic CCooperation (APEC) conference in Beijing.

These initiatives exemplify an alternative to the heretofore hegemonic global financial system dominated by the monetarist banking centers of Wall Street, the City of London, and Paris. These developments taken together, and related activities and initiatives in this direction, signify a fundamental change in the world. What we might call the BRICS/New

Silk Road geometry correctly focuses on fostering real economic growth derived from massive investment in infrastructure projects, contrary to the Western policy of finding new exotic financial mechanisms to maintain the "too big too fail" banks, that are dying under the weight of \$1.75 trillion in worthless derivatives.

Saving Lives and Reversing Desertification

2. The two largest bodies of water in the Sahel are the In-Land Mali Delta, and Lake Chad, both of which, if developed, can yield increased food from farming and fishing, required to feed almost 25 million Africans who exist in the Sahel at varying levels of food insecurity.

Preventing the disappearance of Lake Chad and refurbishing it to its 1963 level of 25,000 square kilometers, is not just of great importance to the nations of the Sahel and the rest of Africa, but is strategically important to the planet. If we would realize the full potential of the Mali In-Land Delta on the Niger River and restore Lake Chad, we would not only save tens of millions of lives, but also begin the process of reversing the southward march of the desert Large-scale water projects along with east-west and north-south high-speed railroads, and the generation of hundreds of thousands of additional megawatts of electrical power (including large-scale use of nuclear energy), are not fanciful dreams. They are vitally necessary endeavors for the development of the African continent to provide for its future population of 2.4 billion, which is anticipated to occur in less than two generations.

3. The Lake Chad Basin Commission (LCBC) must take the lead among African institutions for the mission to refurbish Lake Chad. Water transfer is urgent and essential.

There has been attention to plans for transferring water from the Obangui River through construction of a dam at Palambo and a canal to feed into the Chari River, the largest tributary to Lake Chad. This water transfer would restore a percentage of Lake Chad,

preventing its disappearance at current trends. But that will not return it to its earlier size, which should be the ultimate goal of the LCBC. This project should not be neglected. However, to restore Lake Chad and expand the productivity and output of the countries encompassed by the LCBC, and as well the Great Lakes Region, requires the implementation of the Transaqua water transfer project. The broad outlines are the construction of a 2,400-kmkilometer canal using 5% (100 billion cubic meters) of the Congo River's 1.9 trillion cubic meters of water that pours out unused into the Atlantic Ocean each year, and sending it north to supply the Chari River, which flows into Lake Chad. Transaqua is not just a water project; it is transformative, a great project that will alter

all the nations of the LCBC and Great Lakes, thus transforming the African continent.

There should be nothing astonishing about human beings intervening to move large amounts of water from a super-moist basin to an arid basin, thus improving the biosphere for the benefit of mankind. The key to the successful improvement of an economy/society is the ability of a people to increase the output of physical wealth (not money) produced from one production cycle to the next by increasing the productive powers of its people. Technologically advanced infrastructure supplies a

fundamentally the economic processes and lives of

crucial ingredient to increasing the productivity of a society. Transaqua would create a corridor of development

from the southeast portion of the Democratic Republic of Congo all the way to the Sahel.

Producing Real Wealth, Not Fictitious Money

4. Money is not wealth. All true wealth that has enabled civilization to progress since man's discovery of fire a million or so years ago, is a product of the unique human quality of creativity. The great Russian/Ukrainian scientist Vladimir Vernadsky proved that mankind

transforms the "biosphere" into the "noösphere" (the noetic), through the power of his creative intervention. There is no steady state equilibrium of sustainable development.

The physical universe is coherent with the human creative principle and history demonstrates that its intention is for continued growth and development.

Physicists would call this an "anti-entropic" principle. Thus implementing the Transaqua project is nothing more than intervening to improve "mother nature," if you will, for the benefit of mankind's existence, of which the universe happily approves.

5. Africa is not over-populated, but rather severely

underdeveloped. Now is the time to act to improve conditions

of life for Africans by realizing the full potential of Africa's enormous natural wealth. Africa has been kept backward by the extreme deficit in infrastructure, as witnessed in the outbreak of the Ebola virus. Now is the time for Africa take advantage of the new BRICS/New Silk Road approach to investing in real economic growth, which is spreading to nations comprising over half the population on the planet. Leaders with a vision of what the future of Africa can be, should enumerate identifiable prioritized transformative

infrastructure projects that must be accomplished in the next 10-20 years to secure the future of the continent. We need to ensure that saving Lake Chad and Transagua are foremost on such a list.

Interview: Sanusi Abdullahi

Preparing the Way for The Transaqua Project

Sanusi Abdullahi, an engineer,

is the Executive Secretary of the Lake Chad Basin Commission.

Lawrence Freeman interviewed him on Nov. 20 in N'Djamena, the capital of Chad.



EIR: This week we completed the inaugural session of the International

Scientific Advisory Committee of the Lake Chad Basin Commission (LCBC), which you initiated.

Could you summarize what was accomplished in these discussions?

Abdullahi: Thank you very much for giving me this

opportunity. Let me say that during the last donors' conference for funding the five-year investment plan, it was recommended that we should set up an international

scientific committee to guide us in the implementation of the program. We also had that idea, but

the meeting reinforced the need. During this same operation, we are pleased to have people who have a wealth of experience, and the discussions were very rich

indeed. It was concluded that the committee will intensify activities in 2015 with a set roadmap and specific activities that will help the commission to actualize the program in place.

EIR: Was the meeting successful in your evaluation?

Abdullahi: The meeting was really very successful, because to have participants come from the U.S. and Europe shows the commitment, at least from the people we selected—the fact that they would spare the time. The full participation of the members we invited was very successful.

EIR: We discussed during our deliberation, the need to transfer water to Lake Chad; that simple conservation would not be sufficient. The Transaqua water project which was developed over 30 years ago to transfer 100 billion cubic meters of water from the

Congo River Basin to the Chad River Basin, was discussed in our meeting, but it has not been supported by the donors, nor by institutions from the West. What are your thoughts about the need for us to begin to work on the Transaqua proposal?

Abdullahi: Thank you very much for this question.

Let me say we have had the opportunity to get in contact with Dr. [Marcello] Vichi, who was lead engineer for the conceptualization of this Transaqua program; that contact became possible as a result of setting up this committee. That adds value to the fact that the meeting was a success. The issue of transferring water from the Congo to Lake Chad is, to my mind, the surest way to save this region from so many other problems: not only the issue of climate change, but social, economic integration, and so many other things. During the donor conference, the decision of the political leaders was to stick to taking necessary steps within the Lake Chad area and the tributaries that feed Lake Chad, as a prerequisite to the grand plan to transfer water. From the engineering standpoint, you cannot begin to actualize the transfer of water from the Obangi to Lake Chad, when you know that Lake Chad, as it is now, cannot receive the water. So yes, we may have some people who are not supporting it at this point in time, but we are not deterred. We are able to articulate good reasons to show them the need to support this program. We are trying to make the work for the transfer of water from the Obangi to Lake Chad a priority; we will show the details and the economic analysis for the program to sell itself, so the revenues can be generated. But now we are concerned about the immediate actions needed to prepare the ground, as it were, for receiving the water.

EIR: Yesterday my wife and I had the pleasure of taking a boat ride on Lake Chad; we visited a fishing community, where unfortunately, the living conditions were not sufficient for the kind of development of people we need. Do you think that the development of Transaqua would improve the economic conditions of these communities that depend on the lake?

Abdullahi: This is one of the issues we are trying to address, really, to say that this interbasin water transfer program is a long-term issue. The village you saw

is an "illegal settlement"; it is supposed to be part of the lake. So we are actually doing a census to map out these locations for eventual relocation in the future.

We carry out activities to identify new [villages], and to see if old ones have moved; we are tracking them. Eventually, we will know how to plan to relocate them

in an environmentally friendly way, with less social problems, because once you bring in water, you are telling those villagers they have to go. So we are planning.

I had a TV interview about a year and half ago, and I mentioned that we need to identify the people who are living in the lake illegally, as it were. and then try to relocate them properly, with their own consensus, in an environmentally friendly way, prior to the actual

transfer of water. We are not even encouraging infrastructure development in those places for now,

commission.

because we need to relocate the people. We want to ensure that the new locations we are proposing that these people go to will be so attractive that they would prefer to go there than stay where they are—hopefully, if we get the support.

EIR: We received a letter from Dr. Vichi, the author of Transaqua, which he wrote for the meeting of the International Scientific Advisory Committee [see accompanying article], and he challenged the LCBC and its members to take up Transaqua, because it is an economic development program that will affect not only the Lake Chad Basin but the Congo Basin as well. He said in his letter, "It is in the interest of your children and grandchildren" to take up this challenge. I was wondering if you could respond to that.

Abdullahi: Yes, thank you. Actually, I am writing a reply to Dr. Vichi to appreciate his interest in this issue and his commitment to Transaqua and the transfer project. Reality speaks for itself. Since I came on board, I have been trying to find this guy. and luckily for me. I met one gentleman, Lawrence Freeman, in Washington, D.C., who was able to catalyze this process and got me involved. I hope before the end of this year I will go to Italy to find Dr. Vichi, because I consider him the key to our success. I consider him a "reservoir" of knowledge that we need to go to and swim in and drink. And I am sure that knowing him is going to help this program a lot and help the

EIR: Thank you very much for this interview. My wife and I wish the greatest success to the Lake Chad Basin Commission, and we believe that they are in good hands under your leadership, and look forward to future trips and travels and collaboration with you.

Abdullahi: Thank you very much, and my regards to Executive Intelligence Review, and we hope to collaborate more, and we need you to make our case known to all those who will listen and try to convince them to do something. **And that the time is now!**

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