

Commentary



Blue Nile River irrigation will make Sudan a breadbasket

by James C. Romer

James C. Romer is a rancher, farmer, and feedlot operator with 30 years experience as an agricultural engineer and nutrition consultant. He is a charter member and past president of the American Society of Agricultural consultants who recently returned from Kenya. This article is edited from his address to the Fourth International Schiller Conference on Jan. 12.

Sudan has the land, the water, and the people to produce food for millions of people. All that is needed is capital and management. The wealth of Sudan can be greatly increased from the export of food products, and the balance of payments can be improved as well. From a personal survey I made in Sudan in 1981, five million acres of desert land are available for irrigation from the Blue Nile River.

I designed the Blue Nile Project to use 100 agriculturally trained Sudanese to develop the first 100,000 acres. Each Sudanese trainee would have the opportunity to become owner of 1,000 acres of fully developed irrigated land at the end of 10 years, by working and proving his management ability. Schooling and training classes would be available to help each trainee reach his ownership goals. At the end of 10 years, the balance of the acreage not earned by the trainees would become a joint-venture operation by the trainees. Schools and housing would be constructed on the farm for all employees, with emphasis on continuing adult education for all who want to advance in management and production skills. Fifteen experienced agriculture producers from the United States are available to manage the project and train the Sudanese. A \$100 million 10-year loan is all that is needed to proceed with the development.

Fifty million dollars would be used to purchase John Deere, GMC, and Caterpillar equipment in the United States for the building of the operation. The other \$50 million would be for developing the project over a four-year period.

The project would include housing and schools for all involved. Equipment is available right now to rapidly produce rammed-earth building blocks that are weather-resistant and very substantial.

The Blue Nile Project will be located southeast of Khartoum, east of the Blue Nile River between Khartoum and

Ethiopia, near the highway between Khartoum and Port Sudan. This area is an ancient lake bed and basically level. The project is designed to use the biggest 4-wheel-drive tractors tilling a 60-foot swath. One man and a big tractor can replace 22 men on 25 HP tractors, thereby producing food economically instead of being merely a scheme to employ people.

Water will be pumped from the Blue Nile River by Detroit Diesel engines manufactured in the United States with a total lift of 20 to 30 feet to enter the Canal and Pipe irrigation system.

The fields are designed long and narrow with the effect of having many fields end to end so that waste water from the rows in one field enters the top of the next field and the water is moved across a series of fields with no waste. The big tractors can go from one to two to four miles before turning around and coming back, because the big turn rows waste a lot of space and are inefficient. Underground delivery pipes for the total area would allow farm cleaning and avoid ditch maintenance and weed contamination.

Underground irrigation water supply lines between each long field would supply the gated irrigated pipe used to apply a specific amount of water to each row from supply valves placed on each side of the narrow field. The width of the field is designed so that half the field can be reached by a single run of gated pipe. This system avoids opening and closing gates to the rows and spreads water to the total width of the field at one time. Valves are placed at correct distance to control the length of run and the amount of penetration desired. Service roads between each long field make for easy access to the irrigation valves, for servicing any equipment in the field, and for transportation of produce from the field. Water for livestock is piped to all locations for the grazing of fields when desired.

To save shipping costs, the gated pipe would be built on the site from fiberglass materials. This will reduce the total cost of the project and create a new manufacturing industry in Sudan. This new industry can also manufacture many products for the homes and industry from fiberglass products.

Meat, milk, grains, fruits, vegetables, and flowers would be produced for sale. Foreign exports will help the balance of payments for Sudan. Export of fresh produce and fresh meat can be accomplished by the use of dormavac hypobaric

containers. These humidity-controlled vacuum refrigerated 40-foot containers, designed by the engineers who built the lunar landing module, allow shipment by water transportation rather than air freight. Refrigerated life of products can be extended four-to-six times by the use of the dormavac container.

At the end of 10 years, the total project would be owned and operated by the Sudanese, fully paid for by their own efforts and production. Forty-nine more identical projects could be started as soon as loan funds were available and the total 5 million acres could make Sudan the garden spot of the world, with 5,000 independent Sudanese producing for profit.

Food and housing are the greatest tools available to help keep peace and democratic societies in developing countries. Funds from the United States should be directed toward the development of land and water to produce food on a continuing basis rather than a one-shot expenditure for relief funds.

A planeload of supplies into Africa today is kind of like putting a bandaid on open heart surgery. It does a little good, but we need a lot more.

Here's a proposal that I wrote in 1981, after visiting Sudan, and presented to the Saudi Arabian government. And in it we have the Encouragement of Investment act of 1980; Sudan wrote this law to encourage agricultural development, similar to our old Homestead Act in the United States.

We detailed a project out in 1981, including every part, piece of equipment, the timing, and all that it would take to do the project. We even gave the Saudi government a bar chart showing what field would be farmed at what time in the 48-month development. We would be on the last six months of this project at the present time. That 100,000 acres is capable of feeding 1 million Ethiopians today, if we had started with \$100,000 in 1981.

The reason the Saudi government gave for turning down the project—and they had \$1 billion for development—was this: The government of Sudan is not stable, and it's dangerous to make an investment there.

But at the same time, in going over the land maps of Sudan, Prince Khaled, son of King Faisal, had a grant of 5 million acres. And Kashoggi, the arms dealer, had another million acres laid out. I don't know how much development was going on, but I understood that they had contracted with the Campbell Soup Company to come and advise them on how to do something. And I would suppose that they would employ some Sudanese, but the ownership and the profit would go to the Saudis, who would end up owning the land.

A loan from the United States to a joint venture of Americans and Sudanese, even if it came from the military budget, in 20 years could have that 5 million acres producing \$5 billion of food products annually, which would be enough to feed 50 million people. Do you think that these 5,000 capitalist Sudanese, who would be running these 5 million acres with employment of 50,000 other people because of their efforts, would add enough stability to the government of Sudan?

The Cartagena Consensus

Debtors evade action against the IMF

The Cartagena Consensus of Ibero-American nations was first convened in July 1984 in order to formulate a common strategy for debtor nations to deal with the problem of international debt. Although the resolution which emerged from the meeting strongly attacked the contradictions between usurious and destructive IMF policies and the development needs of the developing nations, the consensus unfortunately limited its action to "requesting" further IMF aid as a solution to their nations' problems.

The statement which emerged from their recent meeting in Santo Domingo, Dominican Republic which ended on Feb. 9, is far stronger than that of July, but represents a compromise, the result of a failure of the delegates to arrive at agreement on common strategy on the debt. The debate was between those who wish to force a confrontation with the creditor nations on a unified basis and those who favor a nation-by-nation negotiation process, the same method used successfully so far by the IMF to prevent unified Ibero-American action. The resulting document, although emphasizing the social and political upheavals caused by IMF austerity policies in the past and warning of more serious social explosions in the future, fails to set a date for the proposed "dialogue" with the IMF, which means the group will wait until after the April 18 meeting of the IMF. Further, no mention was made in the final communiqué of two important issues, the setting of a limit to "foreign profit repatriation" and for the percentage of the total of exports that can be used to pay foreign debt.

The following is an English translation of the text of the Santo Domingo Declaration signed on Feb. 9 by the countries of the Cartagena Consensus, as published in El Universal:

The Foreign and Finance Ministers of Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Mexico, Peru, Dominican Republic, Uruguay, and Venezuela, meeting in Santo Domingo on Feb. 7 and 8 at the Third Ministerial Meeting of the consultation and follow-through mechanism established by the countries signing the Cartagena Consensus, reviewed developments registered since their meeting in September 1984, in Mar del Plata, with a view to carry forward and update the joint action strategies contained in the Cartagena Consensus and the Mar del Plata Communiqué.

They received with deep interest the expressions of His Excellency the President, Dr. Salvador Jorge Blanco, rec-