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## Interview: Marcos Gundiri

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# The role of water projects and irrigation in developing Nigeria

*Mr. Gundiri is head of the Hadejia Jamaare River Basin Development Authority in Kano state. He was interviewed on Oct. 8 by Lawrence Freeman and Uwe Friesecke.*

**EIR:** Could you explain to us the scope of your tasks and responsibilities?

**Gundiri:** We are a committee set up by the federal government to take care of the Hadejia Jamaare River Basin Development Authority, in Kano, which is one of the five river basins in the country. We are primarily responsible for the development of irrigated agriculture in three states of the federation—Kano, Jigawa, and Bauchi. We also do some flood and soil erosion protection works, and supply water to some rural areas—we get involved in rural development to a certain extent. Presently, the river basin has established an irrigation project in Kano state of 15,000 hectares, which is being irrigated by waters from the Tiga and Baganda dams.

Under the Kano River basin plan, there is supposed to be 30,000 hectares irrigated; you can see that we have just started the first 100 hectares. We have yet to start with the full implementation of the program because of the financial implications, which are enormous. There is, however, another hydroelectric project, which relies on water from some of the rivers upstream, and which lies at the confluence of the Kano River and Hadejia barrage.

We hope to develop in that area about 25,000 hectares, and so far the contracts for stage one of the project have been signed and are being implemented by a French company, and so far almost 65% of the work has been done. That's going to produce a variety of sources of water from the reservoir which has been constructed, and the construction is now on site, and we hope that pretty soon we will have the project completed. That project is located in Jigawa state.

Now, in Bauchi state, there is the proposed Kafin Zaki dam, which is yet to be started. It would double the area under irrigation, providing water for about 127,000 hectares there. Then there are other small projects. There are some smaller dams in Bauchi, for instance, and I would hope to irrigate more than another 2,000 hectares of land for production of wheat, rice, and other cereals. The good thing about that dam, is that it can serve both Jigawa and Bauchi states, because it is on the border. And then you have some small

projects which utilize the already-existing water and natural lakes located in Bauchi, and these include the Patabu, where you have irrigated up to about 250 hectares of land.

There are other projects which are under feasibility study. We have to look at the projects and the recommendations of the consultants, and look at what the government can offer in terms of funding, before the decision is taken on whether to go ahead. One good thing about most of our projects is that they are farmer-based, because all of the development is done by the farmers. For instance, the 10,000 hectares we talked about in the Kano basin project belong to the farmers. We go in and develop the land and hand it back to the farmers, provide them with water. We charge them for the water and cost of land preparation and other services which we render.

**EIR:** Could you indicate how important irrigated agriculture is for the area of your responsibility?

**Gundiri:** We cannot run away from the fact that if we want to have a viable agricultural project, we have to have irrigated agriculture, particularly in this part of the country or in this part of the world, which is very, very prone to drought. There is an absolute necessity for irrigated agriculture. In Kano, the rainfall is sometimes very short. Even if you have rainfed agriculture, if you can, you do some additional irrigation, to have more water for your crops; that man is going to improve his yields. It is not important for this area alone, but for the entire country.

**EIR:** Nigeria went through almost 10 years of structural adjustment programs forced by the International Monetary Fund and World Bank. Did that affect irrigated farming?

**Gundiri:** I think that to a certain extent it did, because the cost of inputs rose astronomically, beyond which most farmers could pay. Before the structural adjustment program, the cost of fertilizer was 20 naira a pound, and now they are charged about 200 naira—10 times more. Most farmers are not prosperous enough to adjust. Most of them do subsistence farming, so they cannot sell enough of their products to buy enough of these inputs. If we go around Kano state today, we will find a lot of them back using natural manure, that is, cow dung, and some of them using compost, the ordinary rudiments of organic fertilizer, from their homes. And if you

look at the question of herbicides and pesticides and other chemicals that are used in agriculture, their prices have gone beyond the reach of even the rich farmers. Some of them now don't even use them. The effects have been very, very negative on most of these farmers.

Also, the cost of spare parts has gone up. The cost of petroleum products has gone up. The cost of labor has gone up. For instance, before the structural adjustment program, the cost of a tractor in Nigeria was about 5,000 naira; today a tractor with implements costs over 1 million naira. The cost of land graders before structural adjustment was 70-100,000 naira, and now they cost more than 5 million. Pumps are in exactly the same situation. The so-called lister pumps used to cost 50,000 naira per unit. These pumps now sell for nearly 2 million.

**EIR:** Would you say those increases in prices have significantly slowed down your plans for expanding irrigated land?

**Gundiri:** Yes, that is why we have slowed down the development of the Baganda project, for one example. All the other programs have been stalled because of cash flow. We are estimating that the works on the Kano phase two will cost nearly 6 billion naira, and at the time of construction, it was about 400 million naira.

**EIR:** Do subsistence farmers use irrigation?

**Gundiri:** Yes, especially in the wetlands. Most of them have wells that have been developed by the World Bank, and have been adapted by a lot of ministries of agriculture of other countries. These are wells about 6-8 meters deep, from which the farmers draw water to irrigate their small parcels of land. The country today has more area under this nonconventional form of irrigation than the conventional form developed by the government. Most of the farmers have more land under irrigation than what the government has under irrigation.

**EIR:** These agricultural projects that you outlined are funded by the federal government of Nigeria?

**Gundiri:** Yes. The river basin projects were established beginning in 1973-76. All the projects on the river basins are funded by the federal government.

**EIR:** Are there more water resources that should be tapped, and are there more projects on the drawing board which, for lack of funds, are not being implemented?

**Gundiri:** The water resources of Nigeria are absolutely tremendous, mostly ground-to-surface, and a lot of it is untapped. Almost all river basins in this country have one or more projects that is still on the drawing board. There are some that, because of the poor funding, cannot really get started.

**EIR:** Africa has often made the world headline news with

drought, starvation, and harvests and crops being destroyed due to aversive weather, etc., especially in the Sahel. What would be the correct approach to solve that problem, beyond the borders of Nigeria?

**Gundiri:** The European Community has done a lot of work, some irrigation programs, but they are concentrating on the northern fringe of this country. However, I think one of the best ways out is to develop more irrigated agriculture, maybe through the use of groundwater, or through the use of water transported from areas of surplus to areas where there is low consumption of water, particularly from Central African countries, especially the Congo basin, into some of these Sahelian areas. It is going to cost a lot, but in the end that is one of the best ways to solve the problem. You transport the water and develop a lot of irrigated areas.

**EIR:** Was there a plan on the books to divert water north to expand Lake Chad?

**Gundiri:** Support for a program is dependent upon knowing whether you are going to get funding or not. A lot of studies have been done, especially for transporting water from some rivers in Nigeria to Lake Chad. That's a very feasible and commendable thing, if it could happen. I support that plan.

**EIR:** One of the arguments over the years has been that large-scale irrigation turns out to be a big problem, because one is unable to handle the after-effects of salination of the soil. It is said that such projects were typical of the first euphoria of independence, but in the end these large-scale irrigation schemes will cause more damage to the environment and therefore should not be done. How would you answer that?

**Gundiri:** It all depends upon the initial education you give to people. There has to be some sort of mobilization of the communities that are going to be served by the project, both on the environmental impact and the way they should maintain the project. If you look at what we have in Kano today, there's the Baganda project. We know there is a problem of salinity, which has taken over about 1,000 hectares of our land, but the people are educated about how to take care of the project. However, if you look at some other large projects, you find that the people are not as educated, as receptive to be educated as a culture, as in Kano. So there is a problem of maintenance, and even the culture of the area, because not many of the people accept irrigated agriculture. In the end, you will find that it is important, first of all, to convince people to do irrigated agriculture. It is always better to start from the small. Let the farmers have the concept themselves, and come in and assist. That is better than going out to have a large scheme and then trying later to convince the people to come in, because in the end you will fail.

For sure, problems like salination can be handled, although the solution can be costly at times.