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Interview: Robert T. N'Dau

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# Africa's tremendous potential for development through technology

*The following remarks on the potential for the technological development of Africa—especially utilizing inter-basin water transfers for irrigation, energy, and transport—are from an interview with Robert T. N'Dau, former Minister of Planning, Transportation, Industrial Development, Water Resources and Mining of the African nation of Mali, who was also secretary general and president of the Senegal River Authority. Mr. N'Dau now works for the United Nations in Nairobi, Kenya, and was in Washington, D.C. to attend an International Symposium on Drought and Desertification Oct. 24-26. He was interviewed by EIR Washington bureau chief Nicholas Benton on EIR's daily radio program on Oct. 28.*

**EIR:** My first question concerns the potential for the development of infrastructure in the continent of Africa. Many of the comments that are being made at this conference at Howard University this weekend [such as by Lester Brown of the Worldwatch Institute, who claimed that overpopulation, resulting in the overuse of the land, was the cause of the growing deserts in Africa and, thereby, long-term food shortages—ed.] have been to the effect that Africa is faced with a virtually irreversible process of desertification. What do you think Africa's potential for infrastructure and water development is?

**N'Dau:** The potential of Africa in water resources, in soil, in hydroelectric power, in mineral resources is tremendously huge. Actually, the continent uses about 53% of its arable lands, and 47% remains unused. The continent has about 545 million people. If you take Africa globally—because, here, nobody understands that Africa is very diverse, that there are many Africas—the continent is not overpopulated.

The real problem is the technological tardiness of the people. If you speak of population-carrying capacity of the land, it is not fixed. It is a function of the technological level inside the country, and around the country. There are three levels of technology, of inputs. At the most basic level, you are dealing with agriculture being done at the time of the Bible. For most of our people, their technology is the technology of the time of the Bible. . . . But if you give a limited amount of input, in terms of fertilizer, water control, tools, and so on, you will see that land-carrying capacity increases

tremendously. And, if you take the high-development route, there is certainly no overpopulation. What is happening is that the speed of increasing of the population is too big to be complemented by the speed of economic development. We can solve the problem by taking more care of the rural development and of the technologies that can increase the capacity of the land.

This is the solution to desertification. Desertification in Africa is exacerbated because the people with axes, hoes, and fire, as their only tools, are obliged to overexploit the natural resources, to denude the ground cover to survive, to prevent famine. But at the same time, they are unable to use other natural resources which are there as water resources, mineral resources, and other local energy resources.

So, for me, to pose the problem as a problem of overpopulation alone is crazy. To push African countries to control population increase without understanding that African women make many children because most of them die before 12 years without help for them to keep the children alive, is just criminal. To do all that without speaking of the other factor which is fundamentally important, the mobilization of the unexploited natural resources to help the people, I say, I cannot qualify this attitude.

In your country, you have the benefits of development for 4,000 years. Europe started with the plow and animal power 4,000 years ago. They had 4,000 years of slow evolution with famines, epidemics, and so on to reach the point where they are. Africa has been forced by the international system, the world system, by the colonial conquests while Africa was about at the 16th century, technologically. So Africa has a leg in the 16th century which is still there, and one leg in the 20th century. That is very painful for Africa. So you can observe very clearly that with technology, African people actually use natural resources, but they have not the technological tools to exploit correctly water resources, mineral resources, local energy resources to feed themselves; 85% of the food production in Africa is made by human muscular energy. Man is not a good motor for building, for thermal energy.

**EIR:** You are talking about the need for the development of

dams, power, and irrigation systems in Africa, the use of the advanced understanding of modern technology to transform Africa to be able to feed its population. As the former Minister of Planning of Mali, having been involved in a number of these projects yourself, can you comment on your experience with the dam construction on the Senegal River?

**N'Dau:** I want to say first that I believe in action at all dimensions. State government should start centralized big actions to give inputs locally to small farmers to survive without destroying the soil and original ground cover. And this means fertilizer plants, hydroelectric power, and so on to produce locally the basic input needed to change the situation. But it doesn't mean that I don't believe in another action which is fundamental. . . . So, we should work on our two legs. One leg is that of the community at the village level inside the traditional system. The second leg is centralized action at the international level, at the sub-regional level and at the national level of government to give to the production of what the small farmer, the cattle producer, needs so he can transform his own system and produce his own food and to have a better living.

I have been involved as an engineer, as a former secretary general of the Senegal River Authority. I was appointed by four heads of state at that time in 1964. And God made that I had the honor to be minister, and president of the Senegal River Authority, and I had the honor to launch the two dams around which there are many controversies. I can tell you that most of the controversy comes from people, who don't know at all what are the parameters and the bases. For instance, on the Senegal River, it is not like Aswan Dam. . . . This management is in the infrastructure needed to transform a savage river that flows three months a year—where there is no water in the river for nine months—into a constant flow to make turbines work to make energy to irrigate all the year around 375,000 hectares for countries who import more than many hundred thousands of tons of rice and so on, and to make transport between three countries, and from them to the Atlantic Ocean.

The program is very strongly needed. It is difficult to achieve it and make it productive, but we have no choice. It is there that we have a major water resource, an energy resource, and an economic transport possibility, and Americans should think about the Tennessee Valley Authority and many other dams which have created the development of their country. Because we are doing the same, we are building them, and I think there will be many opportunities for Africans and Americans to invest in the development of irrigation, because there is permanent water; to invest in the development of industry, because there is water and energy, about 1 billion kilowatt a year at low cost; moreover, there will be economic links to exports and imports and transports.

**EIR:** Can you comment on the feasibility of this plan for the

diversion of the Zaire River to Lake Chad and the filling of Lake Chad to become a major resource for the irrigation of the entire Sahel?

**N'Dau:** Africa is a continent of about 30 million square kilometers, inside of which there are 9 million kilometers of internal depressions which are not drained to the oceans. The continent furnishes 4,200 billion cubic feet of fresh water to the oceans around without retaining any. If the continent is going to dry up—and that has happened, the Sahara is increasing—we can store in our underground capacity of storage and in these shut-in basins a part of this huge amount of water going back into the oceans around the African continent each year, and in this context, Chad is one of the internal depressions.

Drought, and perhaps poor management of the water resources, has led to a situation where the Chad Lake is going to disappear. And whether there is good rain or bad rain, in reality, we have to reinforce, to stabilize the existing Lake Chad, to stabilize the existing countries around, and the populations around.

The idea to use a part of the enormous quantity of water of the basin of the Zaire and to put a small part back to the Chad Lake is very interesting. In Europe, in America, everywhere in the world, slowly has developed a network of canals for navigation purposes, and many of the canals link two different basins, one to the other, with locks and so on. It was in the actual technology for centuries. So it is not at all unbelievable, and economically, it has to be studied carefully.

The plan would be to make a dam on the Ubangi River, because the Ubangi has dried, and the navigation for central Africa is worse and worse. A reservoir dam on the upper Ubangi will give three things: energy to develop northern Zaire and central Africa, a good link for land-locked countries in central Africa to the ocean through navigation, and a part of the reservoir can be diverted to replenish slowly the Chad basin.

But, at the same time, you have to do more than that. You have to make a better use of the existing water on the surface and underground in the basin of Lake Chad. You have also to organize a better sharing of the resources of water between riparian states. Actually, there is very little use of the water on the Chad Lake. So you have a complex study to do as you have done for Tennessee Valley. And to find perhaps the complement for water needed in the Ubangi, in the Zaire basin which is nearby.

I am against the sectorial approach because it has led us to the awful situation we have in Africa where one comes to the village for human health, another for cow health, another for water, another comes a few years after for forestation and so on. The result is that the sectorial approach has created paradigms and contradictions and led the population to the situation where we are.