TVA, Mekong, and China's 'Heroic Civil Engineering'

Prof. Lance Endersbee was instrumental in the engineering of the celebrated Snowy Mountain Scheme for hydroelectric power and irrigation, launched in 1949, Australia's largest and most successful infrastructure work since World War II. In 1964, he worked on water-management engineering on the great Mekong River system in Indochina; and has recently visited China. He was interviewed on Nov. 19 by Gail and Michael Billington, who reported in EIR *for Nov. 15, the important infrastructure summit of the states of the Greater Mekong Subregion (GMS), during the Nov. 3-5 ASEAN summit; and interviewed the Asian Development Bank's GMS coordinator in* EIR *for Nov. 29.*

EIR: The first-ever summit of the six member states of the GMS and the ASEAN summit meeting in Phnom Penh, Nov. 3-5, offered an opportunity to review the implications of the Mekong development plan for these countries.

Endersbee: About 30-odd years ago, in 1964, I spent one year in Southeast Asia working on the Mekong projects and other projects. I was with the United Nations Technical Assistance Board (UNTAB). I was stationed in Bangkok, and I was working with the national energy authority of Thailand (EGAT), and I was looking at the potential for hydropower development, not only on the Mekong, but in the tributary projects. I did a survey of the markets, and I demonstrated that there were a number of economic hydroelectric projects that could proceed.

It was decided at the time—and the World Bank and others were behind this—that there was no way they were going to touch the main stream, but they were happy for these projects to proceed on tributaries. At the end of my tour, I gave a presentation to the Mekong Committee at a meeting in Saigon, and they were all saying that they couldn't proceed with some of these tributary projects. Then, the following morning, after it had all broken up in despair, overnight a few people had been in touch—I think it was all stage-managed—the Israelis stood up and said that they would fund an irrigation study, based on a particular dam in Laos. The Japanese stood up and said that they would be prepared to design the dam and the power plant, and the Iranians stood up and said that they would supply all of the cement for the project, free of charge.

The project went ahead. This hydroelectric and irrigation project in Laos was constructed right through the middle of the war in Vietnam, while all the shooting was going on, that project went ahead, and I thought it was absolutely wonderful.

EIR: Is that the same place where they just built the dams recently?

Endersbee: Yes, indeed. I think there is fantastic potential there, but it really needs a major look. I think now the Chinese are going to take a major interest in this.

EIR: Yes, they are, they are very active working on two or three dams now on the upper stretches of the Mekong.

Endersbee: Well, I've just had a week in China, and I have never seen more heroic civil engineering in all my life. One of the incredible things there is, because they have no private ownership of land, if they decide they are going to build a 1,000-kilometer freeway, they just start building it. Most impressive; and magnificent bridges. I thought the Chinese engineers were fantastic.

EIR: The Chinese are building dams on the Mekong, in the Chinese section of the Mekong, and they are also working hard to clear out the Mekong by blasting out navigable channels. They are coming under a lot of criticism from the environmentalists, who insist this is disturbing the water flow in the lower Mekong, and that blasting out the channel may affect the fishing communities, where 60% or more of the protein in the diet in these areas is from fish.

Endersbee: That will recover in all sorts of other ways. I think that it is terribly important that they recognize the reality in that area, and they just have to plan and build for their future. Some of the environmentalists rather scare me. We've got them in Australia. They're saying, well, let's protect the environment, and let's protect us in Australia, but let the rest of the buggers die off.

You know, we have to have a fairly humanitarian approach to this.

EIR: One generation has already been decimated by the Indochina wars.

Do you have a sense of the overlapping rivalries among

Prof. Lance Endersbee of Australia, with a map of the famous "Snowy Mountains Scheme" for water and hydropower, on which he worked as a leading engineer from the late 1940s.

the several organizations that have "Mekong" as part of their name?

Endersbee: It's a feeding frenzy of consultants. People are coming in from all over the world, the carpetbaggers, and they're trying to get a slice of the action. I feel that the tragedy is that it is a true international project. It requires true international planning and strategic direction, and this is where we are falling down.

I think in this particular case, the UN, I think, has far more responsibility than groups like the World Bank and the Asian Development Bank. I get fed up with bankers, who try to manipulate these things so that they are in charge of the flow of billions of dollars, and I find the whole perspective rather warped. I think the United Nations has a very clear responsibility to get on top of the whole issue, and to indicate that if we go about this properly, there is enough for everybody and everybody is going to do well indeed, and they have to sell that idea to the individual countries.

At the moment, outfits like the World Bank, and others—by dealing with individual countries and trying to manipulate their currencies—I think they are undermining the whole strategic planning of the region.

I think the Chinese are alert to this, and I think they are saying to themselves that if the United Nations is not going to have the gumption or the ability to do it, well, perhaps their big brother in Beijing may do it.

EIR: They certainly are the only ones who are moving ahead with determination on it at this point. The other countries, for the most part, don't really have the means to do it, although it is a beautiful opportunity for doing crash education, civil engineering for a population that has not had access to that.

Endersbee: You see, any project that involves the integration of disciplines and the management of people toward a common purpose, has the impact of lifting the entire community, because they start to work together for purposes that are greater than individual interests. Throughout all of that area of Southeast Asia, the sort of things that have happened over millennia, really, has been basically every man for himself. They have the greatest difficulty in working together for any common purpose because they don't trust the other chap.

This is where the Chinese can be enormously powerful and can dominate that area very quickly because they all come in with a unified purpose. . . .

EIR: The argument of the current ADB and others is that we can only do that for which we have the money, therefore, until such resources become available, we are going to have to stick to some of the road projects and things that are very useful, but are lower cost.

Endersbee: I don't believe that business about the money.

EIR: Partially, it's because they are fixated on the idea that private industry has to do it, and they are not willing to go with the kind of credit policies that LaRouche argues for, or that Roosevelt used.

Endersbee: It is also related to the enormous problems in the U.S.A. at the moment, and [Federal Reserve Chairman Alan] Greenspan and his 1.25% money. All of the projects that we are talking about in the Mekong valley would go up with 1.50% [bond] money. It's crazy to be holier than thou and say there is no money available. The money depends on the rate of interest, and it has been my impression in Australia, where we have had a lot of this privatization of government utilities. For a hundred years or so, all of our infrastructure was built by government, and largely built on the basis of money from superannuation [pension] funds, and from people who are only too happy to invest in government-guaranteed bonds on 5% interest.

And superannuation funds, in particular, were delighted with this, because they had the responsibility to preserve their members' funds, and they were building the nation, and they had money available for projects of 5% interest, which was security for their members.

Now, we've lost all of that in Australia, and I am finding

FIGURE 1
The Mekong River Basin

Endersbee's knowledge of the Mekong River water management projects goes back to his work there in the early 1960s. Mekong development discussions are now crucial to the Eurasian Land-Bridge policy emerging among Asian nations. Endersbee counsels it must be a single, unified "Great Project" idea of development, and proposes the Tennessee Valley Authority model.

that the superannuation funds are coming back to me and saying, look, we've got billions of dollars, and there is no way we want to trust the members' money on the stock market. The same would apply in America or Europe. There are billions of dollars out there in things like superannuation funds and trusts that want a safe, government-guaranteed, long-term investment.

Now I think the United Nations could easily do something about that. It is the sort of thing that the World Bank would not like, because they are also just taken over with this idea of free trade and other things, and if you start talking about superannuation funds and investing in major projects, that is not free trade; but as far as I am concerned, people have a right to invest their own money in their own projects.

EIR: Well, of course, it's going the other direction now, trying to privatize things like Social Security; pension funds have already been stolen off into the markets. Billions have been lost that could have been put into these projects.

Endersbee: Absolutely, but you see, these sorts of projects provide a long-term framework for secure private investment; and this is something else that these private banks don't comprehend. This is what I am trying to talk about in Australia. If we can announce 10-, 15-, and 20-year projects, where we have a clear plan of action, the private sector will invest with confidence. I think if the UN takes a strong interest in this, they can integrate it into the economic plans of each of the individual countries, and they have can have plans for development. . . .

Another thing about this long-term planning is that China itself is doing this long-term planning on a grand scale. We drove out west of Shanghai for about 100 kilometers or so on a freeway, three lanes wide in each direction, roses planted down the median strip, three-four rows deep, all the way down the median, industrial estates on either side as we got near Suzhou, and when we got into Samchao, the local taxi driver told us that 70 of the top 500 manufacturing firms in the world had manufacturing plants in Suzhou.

We drove by these huge factories like Nike and Jujitsu, all the big names, beavering away; and, interestingly, many of them had dormitory buildings alongside, where the workers live. They worked, admittedly, fairly long hours, but, gee whiz, you get into these factories and they are as modern as can be. The latest available machinery and, in some of the factories, virtually all of the manufacturing machinery was made in China. It was all most impressive. But it was being explained to us that because they have this long-term plan of growth, there is a rush among individual investors in China to provide the money for these industrial developments. And the incredible thing is, that they virtually re-invest all of their profits, just continual re-investment all the way.

That could easily be done right through the Mekong valley.

EIR: One of the things that is brought up as an objection to some of the dams and so forth, is that you have this extraordinary water phenomenon in Cambodia with the Tonle Sap River, where, in the rainy season, it backs up from the Mekong to nearly five times its normal size and the water flow reverses direction. Are these serious problems? Have they been solved already?

Endersbee: The whole thing has to be treated as an integrated system. You cannot go in and build Tonle Sap as one item. It has to be part of an integrated development of the entire Mekong Valley together with the tributaries, and also, if you like, navigation, flood control, and the rest of it. If they do that, they are in a position to look at these individual problems and work out solutions.

This is the sort of thing that was done very effectively in

The new Nanpu Bridge in the Pudong section of Shanghai, typifies the "magnificent bridges" being built in China's national infrastructure construction drive, which Endersbee calls, as a whole, "heroic civil engineering."

the Tennessee Valley Authority (TVA), and the Tennessee Valley scheme worked because it is a totally integrated operation.

What has happened is that the world has gone into an "unlearning" exercise. The present generation, and this is even some of the senior people, have grown up with very little background of actual achievement. For the last 20 or 30 years, the whole business of public infrastructure around the world has moved toward privatization and corporatization. In effect, it has been an attempt by governments to extract money out of the investments of generations past.

In other words, all of the things that were built, all of the experience that was built up—that had a momentum of its own; and in order to privatize and corporatize, they had to destroy the engineering organizations, and they had to destroy the morale of those government organizations and, effectively, all the people involved in them. They had to destroy that in order to convert it into the "market force" view. We have had a situation—and this has happened in America, just as in Australia and elsewhere—a whole generation of people have been trained to look in the other direction. They have all been trained to believe that governments are no good, governments are incompetent, and the only way ahead is the private sector.

As far as I am concerned, the private sector has zero hope of even contemplating any little bit of the Mekong project, and the Mekong project is an obvious example of the need for international and government actions and long-term planning.

Now, as you try to start that up, you are going to find that you have to recruit new teams, young people, and take them all through a learning exercise. I find all of that rather scary, but you see all of this has to be confronted, and the incredible thing is that the politicians themselves are intimidated by this. When you talk about the bankers, the World Bank and the others, I find that these people—these bankers—are incredibly good at intimidating governments, and the last thing the bankers want to talk about is any long-term infrastructure. I'd try to keep the banks away from it.

EIR: This is the emperor with no clothes. The IMF's power of intimidation is their power over the bankruptcy of these countries, but what is now being borne out by Argentina and others is that it is the IMF, which is bankrupt. The more rapidly countries recognize that they are no longer beholden to somebody who has been hiding their own bankruptcy all along, the more chance there is that you can have the concert of nations that LaRouche has argued for to put together the monetary policy for these kinds of great projects.

Endersbee: Even within the UN at the moment, I am sure most of the people involved would be horrified at the thought of the UN trying to take any kind of leadership role in this.

EIR: But is this the kind of thing that UNTAB did in the past?

Endersbee: Yes, I was encouraged, and one of the important things that was said to me at the time, was that it was my task to train a whole group of young Thai engineers that I was working with; and I was also told very firmly, by the United Nations, not to learn the Thai language. They said we want you to be a detached consultant. We want them to come to you with their problems, but we don't want you to get in and manage the operation for them.

I found that was actually good advice. At the same time, I used to know exactly what was going on because all of the technical terms were in English, and I could put together the rest of it, but the important thing was that it was my task to encourage them to take these various responsibilities. . . . I found that was excellent, and I could see them chatting away to the senior politicians and others, and I knew that they had got the message and were feeling confident because I had

helped them gain that confidence.

Now, the system works in exactly the opposite way these days. You have to make sure that they haven't got any confidence so that you can tell them something. The entire free market system is directly undermining the confidence of these people so that they are dependent on you, and this is where, once again, the UN has to take charge of this, and say, we are going to encourage these people to develop their own capability.

We're going to plan and build for the future. This is going to be a long-term thing. We'll train teams of engineers, and teams of other people, and we'll just make sure we can get on with the job and do it in-house. Now, that is what you have to do, and it won't succeed otherwise.

That is exactly what happened with the TVA, and the Bureau of Reclamation, and the others. They developed their own momentum, and got on with it. . . .

One of the problems at the moment, I've been looking at the Mekong on the Internet, is that there is right now no coherent plan of strategic development of the entire river system. When I was there in 1964 with the Economic Commission for Asia in the Far East and the Mekong Committee, they had coordinated plans. The Japanese had done some interesting work, and the United States Bureau of Reclamation was doing some good work, but it was all fitting into an overall strategy. That overall strategy was thrown away in the height of the Vietnam War. It was just not possible to continue, and, in fact, one of the reasons why I came home was that there was a parachute drop on one of the dam sites I was working on, so I decided it was no place for a man like me with a wife and four small children.

EIR: You are right, that is a very good point. At that point, the possibility of such a great project was wiped out by the war.

Endersbee: Yes, indeed, and there is nothing now available to capture the imagination of people, on the entire potential. When I came back in 1964, I was pointing out the potential for food, irrigation, electric power. There could be greatly improved prosperity. My experience with the Thai engineers was that the best ones are absolutely brilliant, but the trouble is they get back into the system—the World Bank and such—and everything falls apart. But these are the ones [who] would be galvanized if you provided the overall leadership.

It requires politicians with a level of courage. If you are interested in looking at the Mekong, you should also look at what is happening with worldwide groundwater. A very large amount of the world's irrigation is still dependent on groundwater, rather than surface waters. In India, for example, groundwater supplies over 60% of irrigation water, and all of the wells, worldwide, are drying up. One of the reasons for that is that they all have foolish idea that this groundwater is rechargeable from surface rainfall, and it is not. And what is happening is that the entire world groundwater hydrology profession, and all the people who are using groundwater, are in diabolic strife because groundwater tables are falling worldwide.

Prof. Endersbee in California's San Joaquin Valley, next to a pole recording the approximate level of the farmland at three times in the 20th Century; the land had subsided about 30 feet, due to the groundwater underneath it being exhausted and not replenished.

In China, there are going to be at least 100 million people affected by the shortfall of water in the north China plain. The same thing in India, Yemen, Iran, you name it. I've got onto this because of some work on the Great Artesian Basin in Australia, which is the largest Artesian basin in the world. And I have to point out that all of the assumptions that groundwater is rechargeable from surface rainfall are spurious. This water is just not sustainable at present flow rates. The same applies in China, India, and elsewhere.