The Three Gorges Project is China's 'national project'

Qin Zhongyi, vice president of the China Yangtze Three Gorges Project Development Corporation, gave this interview to EIR*'s Jonathan Tennenbaum and Mary Burdman on Oct. 18.*

EIR: In a documentary film on the Three Gorges Project, we saw that a lot of military people are involved in the construction work on the Three Gorges Dam.

Qin Zhongyi: It is just like your U.S. Army Corps of Engineers. In fact, when the General Commander of the U.S. Army Corps of Engineers visited Beijing, he expressed the willingness to participate in the Three Gorges Project. If you have a chance to meet him, please convey my regards and tell him we welcome his contribution.

Qin Zhongyi: When foreigners think about the Three Gorges Project, they mainly think about the large-scale and huge investment in the project. But the reason why the Chinese government made the decision to build this project, is for flood control. According to the 2,000 years of hydrological records we have, 200 big floods occurred in history, so, about once every 10 years. These big floods caused large losses in the middle and lower reaches of the Yangtze River. The smaller floods claimed several thousand lives, while the bigger flood disasters caused tens of thousands of deaths or even more. The biggest historical disaster was in 1870, when more than 300,000 people died. Normally, the floods occurred in years when there was huge rainfall downstream, plus storms in Sichuan province. This year, there was huge rainfall in the downstream area, but fortunately, there were no storms in Sichuan province, so we were lucky. The situation was really very serious.

Therefore, it is just for the reason of flood control that the government decided to go ahead with construction of the Three Gorges Project. Apart from the Three Gorges Project, we have not found any other solution to solve the flood control problem on the Yangtze River.

In other words, flood control is the main purpose for building the Three Gorges Project. But this is not well known in the world.

When the project is completed, the storage capacity of the reservoir will be 39.3 billion cubic meters, of which 22 billion cubic meters can be used to hold flood water. This makes it possible to effectively control floods. With this huge amount of water, we also get very large benefits for power generation. The total installed power capacity of the project will be 18,200 MW, with 26 units each with 700 MW capacity. The yearly electricity output will be 84.7 billion kilowatt-hours. This will greatly promote economic development.

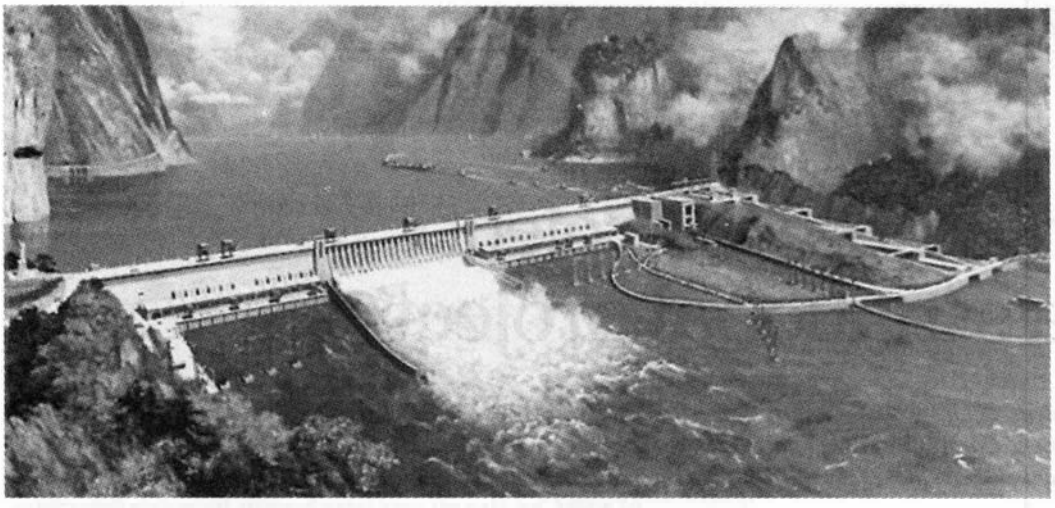
Besides flood control and power generation, river navigation is another benefit of the project. With the completion of the Three Gorges Project, the navigation capacity will be increased, from 10 million tons, to 50 million tons a year, and greatly improve the navigation conditions from Chongqing to Yichang.

Of course, the Three Gorges Project has other benefits, also. But the main benefits are flood control, power generation, and navigation.

For construction of the Three Gorges Project, it is unavoidable to resettle people. According to our original statistics, our estimate in the year 1993 was that the population that had to be removed was 830,000 people. But now, we estimate that, during the 17 years of construction, the number of people to be moved will increase, so that by the time of completion of the project, by the year 2009, the number of resettled people will rise to more than 1 million. In earlier years, we have obtained many lessons from other projects which involved resettlement issues. So, not just in recent years, but for more than 10 years, we have conducted studies and worked on resettlement for the Three Gorges Project, and we proposed various alternatives for resettlement. Through these studies, we developed a whole set of policies and principles for resettlement.

If you want to know the detailed situation about resettlement, I can invite experts from the Resettlement Bureau. In our country, we specially established an organization called the Resettlement Development Bureau, responsible for resettlement. But I will tell you my personal view.

First, of course, without money, there will be no resettlement. For every yuan spent on the construction of the project, we use another yuan for resettlement. Construction of the Three Gorges Project will cost 50 billion RMB [yuan]. Al-



An artist's conception of the completed Three Gorges Dam Project.

most the same amount is being used for resettlement. Of that, 40 billion RMB come from our corporation, and the other 10 billion will come from various sources, including investment by the government for modernization of industry and environmental improvement.

From the people I have met, I know that most of them are satisfied with being resettled. But there is a minority who are not so satisfied. The main reason why people are satisfied with resettlement, is because their living standards will be improved through resettlement, and also working conditions. I can tell you that some people who are not inside the resettlement area, try hard to move into this area in order to become resettlers and benefit from the policies for resettlement. You can see that resettlement policies are efficient by looking at those people.

EIR: Is there a policy to directly involve resettled people in the activity of building the dam?

Qin Zhongyi: Directly involved in the project are those workers who excavate the sand and work along the river for the project, but the numbers of those people are limited compared to the 1 million people being moved. Once, an American friend asked me a question: What are the criterion, the standards, for resettlement, for the people being relocated? I said that the standards are different. There are people living on farms, and there are people working in factories, and living on a salary from the government, so, for them, the situation is different, the standards are different. Therefore, it is hard to have one standard. We know that the resettlement is the most difficult issue, in relation to considering the construction of the project.

But we have determined to carry out this resettlement work as well as possible; otherwise, we cannot finish the Three Gorges Project construction. [Chinese Prime Minister] Mr. Li Peng and [State Council member and Vice Prime Minister] Zou Jiahua are now having a meeting in Chongqing especially on the resettlement issue. After that, we are going to make more acceptable measures for the resettlement and make it work better.

I would like you to know that the resettlement is something we have to do; we do not like it. But we have to do that; otherwise, the 15 million people living along the river will not have a safe place to live.

We all know that the resettlement is the most difficult issue we are going to face. Some people in America are saying that the Chinese government is using the Army to force those people to move; if we could do so, that would be easy, but we cannot, we just will not and cannot do that.

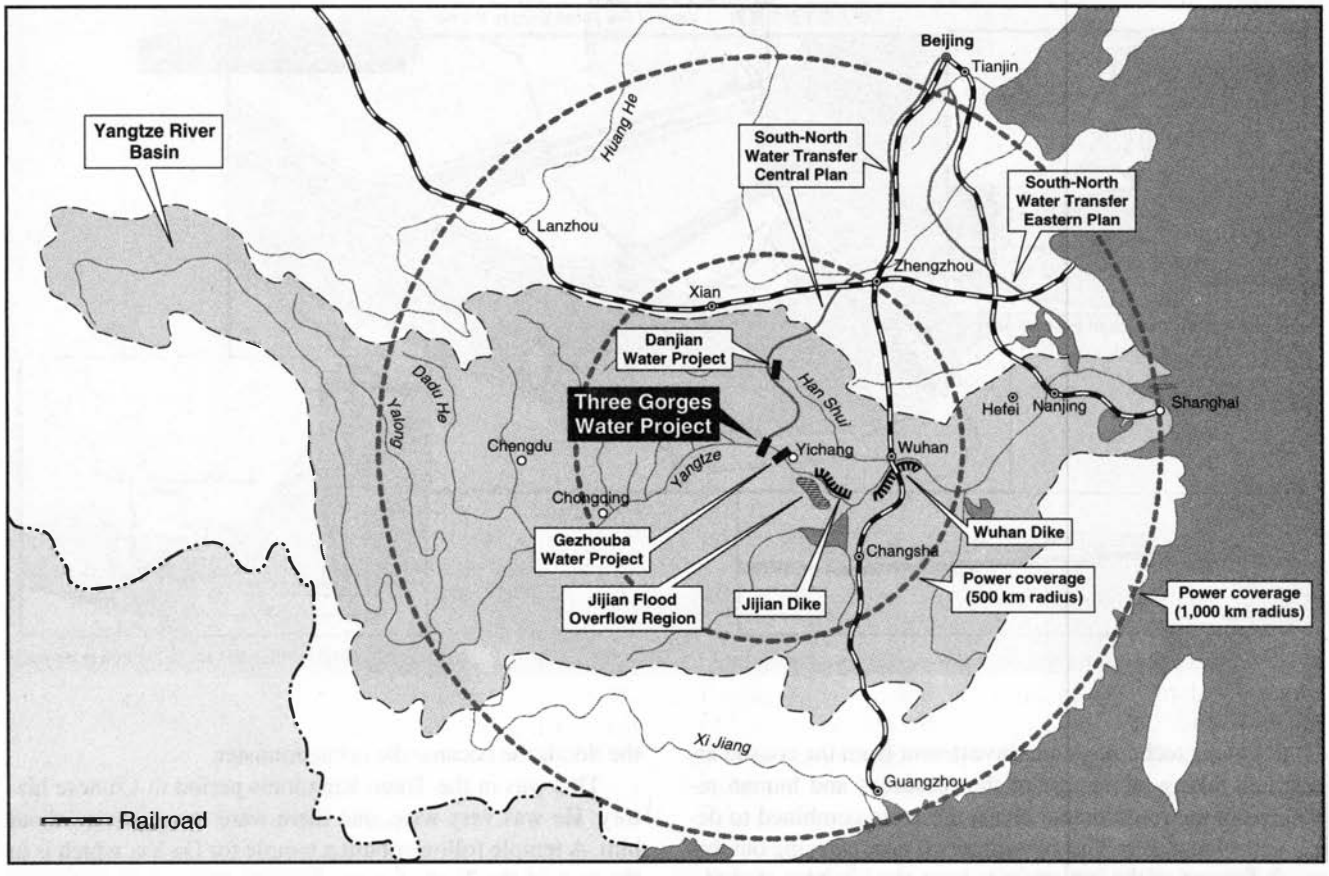
If you come to the resettlement area to interview the local people, you can get various replies from the locals. From the Corporation, we invest about 50,000 yuan per person. This is not just 50,000 altogether, for each person, but to both give them some amount of money as compensation for the removal, while the other part would be about 10-20,000 yuan for infrastructure construction, and maybe 10,000 for the reconstruction of the factories. When these people are asked, "Do you have enough money?" no one would say they have enough.

One Italian interviewed about 50 people in the resettlement area. Most of the people said they were satisfied with the resettlement. Several said they were not satisfied, but that is always the case.

EIR: When you build such a project, it should aid in developing the region where the people are being resettled. Do you have a way to present the positive benefits for the region, of building the dam? For example, in the Tennessee Valley Authority (TVA) in the United States, or other projects, you have cheap electricity, and while it was being built, the construction project was an economic growth factor. In China,

FIGURE 1

How the Three Gorges Dam works with China's water and rail, and power infrastructure



are you connecting the resettlement policy to that, or are you treating them separately?

Qin Zhongyi: From the government's point of view, they put the construction of the Three Gorges Project into the whole country's economic development. However, from the project resettlement itself, there is Sichuan province, where the majority will be resettled, and Hubei province, where there will be many benefits from the project, so it is difficult to make a balance between the two provinces.

The government is now considering putting Chongqing city [now the capital of Sichuan] directly under the central government, as Beijing is administered. Then, the resettlement will be concentrated in the Chongqing area, and from that point of view, it will promote the regional economic development.

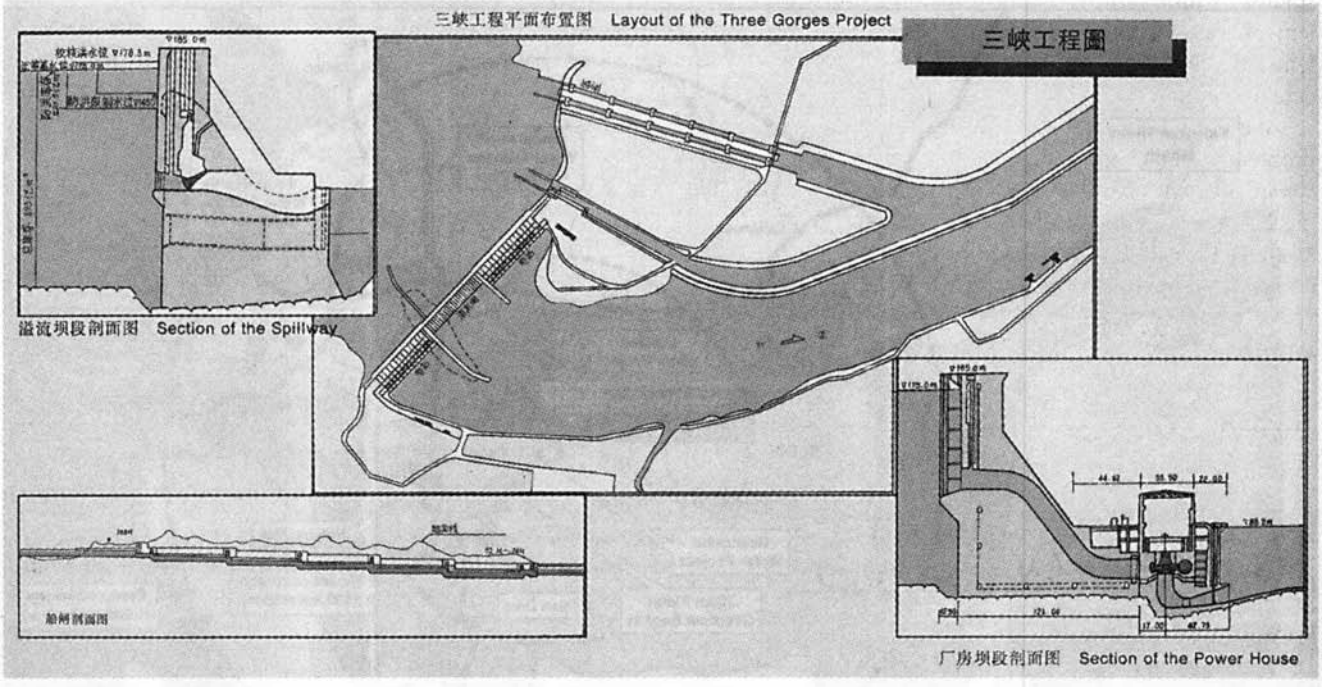
EIR: *EIR* has just written a German-language study on the Eurasian land-bridge, in which we elaborated the idea of the development corridor. The idea is to use the transport lines, together with energy, water, and communications, to create an area with very big benefits for any kind of economic activity. These would include corridors centered on railroads, and along the major rivers. Is this your policy for the Yangtze River?

Qin Zhongyi: In the past 18 years, after we carried out the open policy, the economic development of the coastal areas proceeded in a very fast way. Now the government has decided to develop the Yangtze River area, coordinating the development of eastern, central, and western parts of the country. The Three Gorges Project construction will be very important in this as a whole. The Three Gorges Project is going to provide electricity for the central and eastern parts of the country, and also improve navigation along the Yangtze River; and, also, those counties and cities along the coastal areas are being asked to support the resettlement areas on a one-to-one basis—one coastal city to support one resettlement area.

Also, the government, to set up the factories and projects for the resettlement areas, gave the coastal cities and counties special policies to set up factories and make investments in these areas, to promote the economic development along this area.

FIGURE 2

A closeup view of the Three Gorges Project



By using technology and investment from the coastal areas, and taking advantage of the resources and human resources in the resettlement areas, these are combined to develop the local area. The government is now carrying out this work. Several of the sub-projects have already been started.

Some provinces and cities, such as Haikou, Shanghai, and Xiamen, are going to hire the human resources from the resettlement areas, to their provinces and cities, and I think that we are fully confident that we can make the resettlement a successful one. I believe that only in China we can make it, although in the U.S. you have much more economic strength.

I am going to talk on the environmental issues, since this is drawing concern from all over the world. I am going to give you my personal views. You have mentioned that, outside China, people think that Three Gorges violates the environment, but we believe that it is going to benefit the environment.

In China, we have two ecological problems: One is the drought in the northern part of China, and floods in the southern part. From this point of view, this is the key project to solve the flood problem in southern China.

In Chinese history, there is a person called Da Yu, who has done great work for flood control. One of my American friends said that, without Da Yu, you Chinese people would be like fish under water!

The father of Da Yu failed to control the floods, and was killed by the emperor. Because Da Yu successfully controlled the floods, he became the prime minister.

This was in the Three Kingdoms period in Chinese history. He was very wise, and there were many stories about him. A temple follower built a temple for Da Yu, which is in the area of the Three Gorges Project, and you can visit the site today.

I tell this story, because I think that Chinese history is a history of controlling floods. Although Da Yu was really a great man in history, he did not finish the control of the Yangtze River floods. The president of our Corporation, Mr. Lu Youmei, said that maybe in the future, people may make a temple to him, because he successfully controlled the floods of the Yangtze!

Second, you know that in the Yangtze and Yellow rivers, the sedimentation problems are getting more serious. In the upstream reaches of the Yangtze River, because plant cover has been destroyed, there are more and more floods, more and more silt is flowing into the rivers. In the Yangtze, one ton of water contains 1.2 kilos of silt; in the Yellow River, it is 32 kilos of silt. With the completion of the Three Gorges Project, sedimentation control will be easier, it will be good for control of the sedimentation. In China, the farmland is limited, and the silt lost is a loss to our farmland.

EIR: Do you also have reforestation programs?

Qin Zhongyi: Yes, there is a program for re-planting along the banks of the Yangtze River. Of course, that will take time,

not just one or two years to finish it.

On the environmental issues, we have conducted many studies on almost all issues relating to environmental problems. We know that the project will have environmental problems. We are fully aware of that, and we are going to take care of them.

We know there are some aspects relating to environmental problems, such as that some fish are really endangered, and we are going to take care of that. For example, the Gezhouba project has been finished. It is 40 kilometers downstream. With the Gezhouba project, we had a problem relating to the Chinese sturgeon. They have a special way of life. They spawn in the upper part of the river, and the small fish swim down to the East Sea, and then return upstream to spawn. That is their life cycle. Because we closed the river with the dam, this fish cannot return upstream to spawn. We carried out a study of the sturgeon, and now artificially breed the Chinese sturgeon. Now we have solved the problem, without endangering the species.

We have learned that this is a proper way to treat this sturgeon, because we have successfully artificially bred the fish; but the environmentalists claim that this sturgeon is not the original sturgeon—they say that, it is just like a monkey you keep in a cage. I say that we have no way to avoid doing that; otherwise, we would have to put ourselves in a cage.

[Archeological excavations ongoing in the Three Gorges region of the Yangtze River have unearthed at least 10 important relics of ancient Chinese culture. Most of the tombs, build-

What the Three Gorges Project will accomplish

The Three Gorges Project is being built by the China Yangtze Three Gorges Project Development Corporation, a state-run enterprise directly under the State Council of the People's Republic of China. The Chinese National People's Congress made the final decision to build the Three Gorges Project in April 1992. In the low-water period during 1993-94, the Phase I coffer dam was completed, and excavation for the diversion channel begun. In December 1994, the main job, concrete placement, was launched, beginning the construction of the project itself. The planned overall construction period for the main project is 17 years. The navigation structures and first group of units are to be inaugurated in the eleventh year of construction. Total cost of the project is estimated at 50.09 billion yuan (roughly $6 billion), in 1993 values.

When completed, the dam will be 2,354 meters long, and its maximum height will be 175 meters.

The project is located on the Yangtze River, which, at 6,300 kilometers long and with an annual water runoff of some 960 billion cubic meters, is China's largest river and the third largest river in the world. The project site is at Sandouping, in the middle section of the Xilin Gorge, below which the river flows into a broad alluvial plain, where the slower-flowing water deposits the silt brought from upsteam, creating a serious danger of floods in this Jingjiang section of the river. The vulnerable area is inhabited by 15 million people. Because the reservoir will inundate about 28,750 hectares of land, it will be necessary to relocate up to 1 million people from 19 counties and cities in Sichuan and Hubei provinces. Most will be resettled in areas of their home counties. The *Implementation Program of the Three Gorges Project* states that "it is proper that the development-oriented resettlement policy is adopted, instead of the compensation operation of the past, i.e., the resettlement should be combined organically with economic development of that area."

Flood control: Currently, in the Jingjiang section of the Yangtze River, protected by dikes, flood control capacity is only about 600-700,000 cubic meters, which is insufficient. Sufficient expansion of control capacity through extension of the dikes is impossible. When completed, the Three Gorges Project reservoir will have a total storage capacity of 39.3 billion cubic meters, with flood control storage of 22.1 billion cubic meters.

Flood disasters regularly strike the Yangtze Valley. In 1870, some 300,000 people were drowned; subsequent floods killed 145,000 people in 1931, 40,000 in 1954, and 30,000 in 1959.

Electricity: The Three Gorges Hydropower Station, when completed, with a total installed capacity of 18,200 megawatts, will be the largest hydroelectric project in the world. Power houses, consisting of 26 units, will be located on both the right and left sides of the dam spillway. It will generate 84.7 billion kilowatt-hours a year, the equivalent of burning 50 million tons of raw coal, and transmit 2,000 MW a year to Sichuan province, and 8,000 MW to eastern and central China.

Navigation: The project includes construction of a double-lane, five-step flight lock and one-step vertical shiplift. When the project is complete, 10,000-ton boats will be able to sail upriver to the city of Chongqing from Wuhan. Annual shipping capacity on the Yangtze will increase to 50 million tons, up from the current 10 million tons, and transport costs will be cut 35-37%.

ings, and stone records that will be submerged by the reservoir, will be either removed or reproduced. The Project Corporation has proposed creating an agency to oversee and expand excavations in the area.]

In the excavations, we have found that the Yangtze is also a cradle of the Chinese nation. The archeologists have found evidence of human activities 6,000 years ago. They even believe that the Yangtze is the mother of the Chinese nation, and the Yellow River is the father of the Chinese nation. With this Three Gorges Project, you are finding your mother river, so what is the environmentalists' complaint?

EIR: Is the course of the Yangtze River very stable?
Qin Zhongyi: For about 500 million to 600 million years, the Yangtze has been stable in this course, but the Yellow River changes course very frequently.

EIR: Could you explain the technical challenges of this project?
Qin Zhongyi: I should say that construction of the dam itself, is a challenge to us. For example, the 4 million cubic meters of concrete placements is one of the challenges. Up to now, there is no previous project of 4 million cubic meters, in the world. This poses difficulties because the construction volume is so big.

EIR: Is there a problem, qualitatively different, from building a smaller dam?
Qin Zhongyi: When the quantity changes a certain amount, then the quality changes. But in the Second World War, Generals Montgomery and Eisenhower experienced many small battles, to become generals. With such a big volume for construction, we have consulted many experts in the world, but they could not give us the solution. We have to accept the challenges, of constructing these 4 million cubic meters of concrete.

The other is the sedimentation problem. You may imagine, with the levels of sediment in the river, it will fill up the river bottom, which would prevent the project from working. So we have conducted lots of tests in the experimental phase, to study this, and we have finally found a way to resolve this problem.

EIR: What is that?
Qin Zhongyi: Conceptually: For the regulation of the reservoir, we have a mode to store the clean water, and release the muddy water. Our engineering has designed the dam, with lots of outlets to release the silt at different levels. With these measures, we can retain 90% of the storage for 100 years. After that, this storage will be stabilized.

We have lots of experts who are very experienced in sedimentation control; they have been involved in studies for the Three Gorges Project, and worked out a way to solve the problem. For studying the sedimentation, we have done more than 10 years of studies, and set up large-scale physical models in Beijing, Nanjing, and Chongqing to study the hydrodynamics of the way the sedimentation works, by simulation on a big scale.

I have given several examples to explain the environmental issues. My point of view, is that the purpose of the construction of the Three Gorges Project, is the same as environmental improvement. We know that issue is very difficult, with a lot of work that needs to be done, but we welcome experts to give us comments and suggestions to enable us to finish the work in a successful way. But China is still a developing country, with only small means to mitigate the environmental problems. To avoid them, would mean lots of money. This is also a problem for us.

I know that on a tributary of the Mississippi River, called the Missouri River, there is a project, Mt. Rushmore, where there are statues of four Presidents carved into a mountain. In China, we also had Presidents, or political leaders, who also supported the construction of the project. Although Chiang Kai-shek and Chairman Mao Zedong fought each other politically, on the issue of construction of the Three Gorges, they had the same idea. As did Sun Yat-sen. If you Americans were born in China, you would also have to build the Three Gorges Project!

I call the Three Gorges Project, the "national project," because it is so important for the economic development of China and for making the country prosper.

I believe that this construction project and two others, on the Jingsha Jiang River, upstream from the dam, will benefit China and the whole world, because with these three projects, we will reduce the consumption of 100 million tons of coal, which will have great improvement for the environment. If you do not want China polluting the environment by burning 100 million tons of coal, you have to support the building of the Three Gorges dam.

EIR: In your view, what is the difference between building this project in China, and building projects in the United States?
Qin Zhongyi: You are in a different economic development stage, and your government would not even approve this project. This project was first investigated jointly by American and Chinese engineers in the 1940s. But the corresponding projects in America were all finished in the 1950s; you do not have the need to build such projects in the U.S. at this time; they were done already. But in the 1940s, the conditions for building the Three Gorges Project did not exist in China. So, we could not finish it in the 1950s, but you finished your projects in the 1950s.

Without the construction in the 1950s of the Grand Coulee dam, the city of Portland, downstream on the Columbia River, would be submerged by water, by floods, for sure. This is the information I got when I visited the Grand Coulee this year. But these Greenpeace people, they do not want to see that it

is thanks to the construction that was done in the 1950s, that their cities now benefit.

EIR: Mr. LaRouche, the founder of *EIR,* stresses the importance of the tradition of Franklin Roosevelt, in the face of the economic and financial crisis today. Roosevelt helped solve the economic crisis of the 1930s by building these kinds of projects, including the TVA. During the 1940s and later, the TVA people went all over the world discussing water projects.

If China succeeds in this project, it will become a world model, as was the TVA. Many countries need water projects, such as India and Bangladesh, for example, and it can be a very positive signal, to show that a developing nation like China can do this successfully, and maybe the know-how can be used to the benefit of other countries. I would like to know what you think about that.

Qin Zhongyi: The first drawing of the Three Gorges Project was made by a Mr. Savage, an engineer in the U.S. Bureau of Reclamation. For sure, we need to learn from the experience of American colleagues. In May this year, I visited Washington and delivered a speech in a conference, and the closing sentences of my speech were: "China, in developing, needs the world, and the developing world needs China also. China is now on its way to develop and China needs the world. The world, in developing, needs the development of China!"

I believe that, after Mr. Clinton wins the election, he will change his viewpoint toward China and the Three Gorges Project.

This also involves the benefits for many businessmen in the United States. We also, in turn, welcome first-class experience, services, and equipment to be involved in the Three Gorges Project.

EIR: What is other countries' involvement in the Three Gorges Project?

Qin Zhongyi: There are many companies from various countries that have been involved in the project, such as Germany, France, Japan, Russia, the United States, and Canada, but this only refers to the equipment we have purchased.

EIR: In the case of Russia, what equipment?

Qin Zhongyi: The trucks—the very big trucks. In the 1950s, they participated in designing the Three Gorges Project, so they have provided lots of consulting services. We use advice from all around the world to construct this project, so we welcome people from all walks of life to participate in the project.

EIR: Are these subcontractors, companies who come and work, or are these simply suppliers of equipment?

Qin Zhongyi: Up to now, for the civil construction, the subcontractors from other countries are not so competitive as local contractors, so mostly they supply equipment and services.

Beijing celebrates legacy of Sun Yatsen

by Mary Burdman

The national government of China held an extraordinary celebration of the 130th birth anniversary of Dr. Sun Yatsen on Nov. 12, when Chinese President Jiang Zemin gave a speech in which he praised Dr. Sun, who led the overthrow of 2,000 years of autocratic monarchy to found the Republic of China in 1911, as "an outstanding patriot and a national hero." Some 10,000 people, including most of the national leadership of China, gathered in the Great Hall of the People, the national Parliament in Beijing, for the celebration.

Dr. Sun has been honored in the People's Republic of China as the great revolutionary of 1911, but this celebration marks a new departure, in recognizing Sun's unique contribution as an economist, patriot, and forerunner of the Chinese government's present grand design for the economic development of China and other nations (see *EIR,* June 14, 1996).

An editorial in the national newspaper the *People's Daily* on Nov. 11, stated that "there are only a few years left in a century which began with the 1911 revolution, led by Dr. Sun Yatsen. The Communist Party of China is now taking measures to carry out a grand project that will go beyond this century, in an effort to boost the economic construction, and promote an overall development of society."

The celebration was chaired by Li Ruihuan, Communist Party Politburo leader and chairman of the National Committee of the Chinese People's Political Consultative Conference; other senior officials attended, including Vice-Premier Zhu Rongji, Politburo member Hu Jintao, and Vice President Rong Yiren. Prime Minister Li Peng was abroad. Sun Yatsen's great-grandson Leland Sun, and other relatives, were guests. The chairman of the Central Committee of the Revolutionary Committee of the Chinese Kuomintang, He Luli, and Cai Zimin, chairman of the Central Committee of the Taiwan Democratic Self-Government League, also spoke.

The international development of China

A few historical background points are necessary, to understand the significance of the speech by President Jiang, and other acts to honor Sun in China.

Sun Yatsen's policy for China, as he wrote in his 1921 book *The International Development of China,* was always put in the international context. Sun wanted to transform the nation, using the most advanced technologies available, into a modern industrial state. He called for building 160,000 kilometers of new railways, 1.6 million kilometers of new, paved