

A CHINESE WEEKLY OF NEWS AND VIEWS

Beijing Review

北京周報

Vol. 32, No. 27

July 3-9, 1989



CPC Central Committee Holds Plenum

FOR AND AGAINST THE THREE-GORGES PROJECT

Policy on H.K. and
Macao Unchanged

三峽鳥瞰

A look at the Three Gorges



A farmer's new home.

Photo by Zhang Longfa

CONTENTS

EVENTS/TRENDS

4-8

- CPC Central Committee Holds Plenum
- China Not to Yield to Foreign Pressure
- Foreign Trade to Be Expanded
- China Sticks to HK, Macao Policy
- Martyrs Are Remembered
- News in Brief

DOCUMENTS

9

- Communique of the Fourth Plenary Session of the 13th CPC Central Committee
(Adopted on June 24, 1989)

CHINA

- Spokesman on Current Situation 11
- Three Gorges Project (1): Dream and Reality 15
- Three Gorges Project (2): Main Points of the Feasibility Study Report 22
- Three Gorges Project (3): Why I Am Against the Project 27
- Pictorial Pages Centrefold

CULTURE/SCIENCE

32-34

COVER: A bird's-eye view of the Three Gorges. Inset is the sketch map for the proposed Three Gorges project.
by Shui Ligao

CPC Central Committee Holds Plenum

□ At a CPC Central Committee plenum recently held in Beijing, Party General Secretary Zhao Ziyang was dismissed from all his leading posts in the Party for supporting the turmoil and splitting the Party. A partial adjustment in the Party's leadership was made, with Jiang Zemin, former Party chief of Shanghai, as the new Party general secretary. The session also reaffirmed that all the fundamental policies adopted since the Third Plenary Session of the 11th Party Central Committee will continue. Full text of the communique of the session (p. 4 and p. 9).

Policies Towards Hong Kong and Macao Unchanged

□ Ji Pengfei, director of the Hong Kong and Macao Affairs Office under the State Council, on behalf of the Chinese government, solemnly declared that the Chinese government's policies towards Hong Kong and Macao, which have been formulated in line with the conception of "one country, two systems," would not change (p. 6).

China's Domestic Situation and Foreign Policy

□ In a TV interview with US National Broadcasting Co. anchorman Tom Brokaw, spokesman for the State Council Yuan Mu pointed out that the overwhelming majority of the Chinese people support the leadership of the Communist Party and do not want their government to be subverted. This is the most fundamental fact of all (p. 11).

China Will not Bend to Foreign Pressure

□ Chinese Premier Li Peng reiterated that China will not yield to any form of foreign pressure, and he feels optimistic and confident on the future of the nation (p. 5).

Three Gorges Project: Dream and Reality

□ A large number of Chinese and foreign experts and scholars have spent years investigating the possibility of building a mammoth dam to provide flood control and electricity in the Three Gorges of the Changjiang River. Sharp differences have arisen over the project and the central government has ordered a re-study. This is the first time since the founding of New China that the government has reconsidered an approval which it had already given in principle (pp. 15-27).

Unless written by Beijing Review staff, the opinions expressed in signed articles do not necessarily reflect the view of the Beijing Review editorial board.

Director/Editor-in-Chief: Wang Youfen
Tel: 893363
TLX: 222374 FLPDA CN
FAX: 8314318
General Editorial Office Tel: 8314318
English Dept Tel: 8315599 Ext. 546

Published every Monday by
BEIJING REVIEW
24 Baiwanzhuang Road, Beijing 100037
The People's Republic of China
Distributed by China International Book
Trading Corporation (GUOJI SHUDIAN)
P.O. Box 399, Beijing, China

Subscription rates (1 year):
Australia.....A.\$29.00
New Zealand.....NZ.\$39.00
UK.....£14.50
USA.....US\$29.00
Canada.....Can.\$25.00

CPC Central Committee Holds Plenum

The Fourth Plenum of the 13th Central Committee of the Communist Party of China (CPC) was convened in Beijing from June 23 to 24, 1989.

A communique was issued announcing that Party General Secretary Zhao Ziyang had been dismissed from all leading posts in the Party for supporting the turmoil and splitting the Party. His case will be further looked into, the communique said (For full text of the communique, see p. 9).

Jiang Zemin, former Party chief of Shanghai, was elected to replace him.

The communique also announced the following changes in the CPC leadership:

— Jiang Zemin, Song Ping and Li Ruihuan were elected to the Standing Committee of the Political Bureau of the CPC Central Committee;

— Hu Qili was removed from the Standing Committee of the Political Bureau of the CPC Central Committee, from the Political Bureau of the CPC Central Committee and from the Secretariat of the CPC Central Committee;

— Rui Xingwen and Yan Mingfu were removed from the Secretariat of the CPC Central Committee.

The session pledged to continue to implement the line, principles and policies laid down since the Third Plenum of the 11th Party Central Committee in December 1978.

The basic line of focusing on economic construction and the policy of upholding the four cardinal principles and adhering to the policy of carrying out economic reforms and opening to the outside world will also be fully implemented, according to the



The Fourth Plenum of the 13th Central Committee of the CPC is in session.
WANG XINQING

communique adopted at the plenum.

The four cardinal principles are the foundation of the country and must be implemented unhesitatingly and consistently, the communique said, adding that reform and opening to the outside world, which lead the country to strength and prosperity, must be steadfastly carried out as usual. China will never go back to the old closed-door path.

The plenum reiterated that China's independent foreign policy for peace remains unchanged. China will continue to develop friendly relations with other countries on the basis of the Five Principles of Peaceful Coexistence and contribute to world peace.

The communique called for special attention to the following tasks:

— to check turmoil thoroughly and quell the counter-revolutionary rebellion while making a clear distinction between two different types of contradictions and further stabiliz-

ing the situation nationwide.

— to continue to improve the economic environment and straighten the economic order, to carry out the reform and open policies while seeking a sustained, steady and coordinated economic development;

— to carry out conscientiously ideological and political work and education in patriotism, socialism, independence, self-reliance, plain living and hard work and to oppose earnestly bourgeois liberalization.

— to enhance Party building, democracy and legality, to eliminate corruption resolutely and to accomplish matters of popular concern so as to live up to the people's expectations of the Party.

The plenum highly evaluated the important role of veteran proletarian revolutionaries represented by Deng Xiaoping in the struggle, and great contributions of the People's Liberation Army, armed police and police in quelling the counter-revolutionary rebellion in Beijing. □

China Not to Yield to Foreign Pressure

Chinese Premier Li Peng said on June 21 that China will not yield to any form of foreign pressure.

"In times of difficulty, it is very clear who are true friends," he said during a meeting with a Pakistan delegation headed by Foreign Secretary Humayun Khan who is in Beijing for Sino-Pakistan vice foreign ministerial consultations.

This was the first time Li had met foreign guests since the suppression of the rebellion in Beijing.

Li said some countries had tried to exert diplomatic and economic pressure on China. "This only showed that they are shortsighted and unwise," he said, adding that once they got to know the truth of the matter, these countries would change their viewpoints.

During the meeting, he said China's policy of reform and opening to the outside world will not change, its independent, peaceful foreign policy will remain unchanged and the country will continue to develop friendly relations with all nations in the world on the basis of the Five Principles of Peaceful Co-existence.

"I am full of optimism and confidence on the future of China," he said.

In an analysis of the student unrest which he said had turned into a turmoil and further into a counter-revolutionary rebellion, Li said the incident had a "deep-rooted domestic and international background."

The key point, he said, had been that there are people both at home and abroad who dislike socialism and Communist Party leadership.

Talking about the punishment

of the people involved in the 50-day incident, Li said that "a small minority" of people who violated the law will be dealt with through legal procedures.

"As to the majority of people, who had participated in parades,

demonstrations, a hunger strike and a sit-in," Li said, "We will be broad-minded and treat them properly even if they had had radical statements and actions."

During the meeting, Li also told the guests that his scheduled visit to Pakistan will go ahead as planned. Li is expected to pay an official visit to Pakistan later this year. □

Foreign Trade to Be Expanded

The scope of China's economic contacts and trade with foreign countries will expand, not diminish, promised Vice-Premier Tian Jiyuan in a meeting on June 22 with Viscount Errington, managing director of the Inchcape Group of Britain.

Tian said the quelling of the counter-revolutionary rebellion by the Chinese government doesn't mean that China will change its policies.

He quoted Deng Xiaoping as saying that the line and policies put forward by the Third Plenary Session of the 11th Central Committee of the Chinese Communist Party, especially the policy of reform and opening to the outside world, will remain unchanged.

The vice-premier said that although some foreign specialists, technicians and businessmen have left China, they will return with the improvement of the investment environment and the stabilization of the situation.

Tian said that some countries have attempted to take advantage of cutting bank credits to check China. "That is shortsighted and will not bring themselves benefit," he said.

"There is great potential on China's market and those who lose the market might regret this in the future," Tian said. "If some countries give up the market, others will certainly move

in, because there is both business and money to make in China."

The vice-premier said that China's imports and exports are going well with its export volume at the same level of the previous year and import volume on the increase. Foreign exchange reserves are sufficient and the banks are in good shape, he said.

Errington and a number of other foreign businessmen have expressed their willingness to continue expanding co-operation with China.

The managing director said his China visit shows the Inchcape Group's confidence in its business with China and that he believes that the Chinese government will overcome its difficulties.

Earlier, Keio Nakada, a member of the board of directors of the Japanese Association for the Promotion of International Trade, made a special trip to China to discuss an early resumption of trade, economic and technological co-operation between Japanese and Chinese businesses.

Nakada said that whatever happened should not influence business. The negative effect caused by the recent turbulence on bilateral economic, trade and technological co-operation should be minimized, he said.

Jack and Graham Perry from the London Export Corporation

recently sent messages to Acting President Zheng Hongye of the China Council for the Promotion of International Trade, saying that they will steadfastly work for the promotion of the long-term relations between China and Britain.

Statistics released by 14 foreign trade corporations in Shanghai showed that 123 overseas clients and 320 people cancelled their visits to the city, and some projects under negotiation were also cancelled while foreign business people fled back to their home countries in the first 10 days of June.

However, 238 foreign-funded enterprises in the city are reportedly operating normally and

most of the foreign management personnel and technicians did not leave their work. Construction of 102 foreign-funded enterprises and preparation for 273 such enterprises are proceeding smoothly.

Moreover, some foreign companies in China have told the Ministry of Foreign Economic Relations and Trade that although their governments have stopped signing loan contracts with China, some companies are persuading their governments to retract their hasty decisions and continue co-operation with China, according to Liu Zhi-cheng, director of the Foreign Financing Administration of the ministry. □

China Sticks to HK, Macao Policy

The Chinese government will not change its policies towards Hong Kong and Macao.

This was reaffirmed by Ji Pengfei, director of the Hong Kong and Macao Affairs Office under the State Council when he was interviewed with China Central Television on the evening of June 22.

Ji said that after the recent riot in Beijing many people doubted whether the Chinese government would continue to implement its policies towards Hong Kong and Macao and the Sino-British and the Sino-Portuguese joint declaration.

"I, on behalf of the Chinese government, solemnly declare that the Chinese government's policies towards Hong Kong and Macao, which have been formulated in line with the conception of 'one country, two systems,' will not change."

The Sino-British joint declaration on the future of Hong Kong and the Sino-Portuguese joint declaration on the question of Macao are solemn international

agreements, and the Chinese government will steadfastly abide by the two joint declarations and fulfill the duties as stipulated in them, Ji said.

Ji hoped that the Sino-British and Sino-Portuguese cooperation on the Hong Kong and Macao questions will be maintained and developed, and that the Sino-British Joint Liaison Group, the Sino-British Land Commission, the Sino-Portuguese Joint Liaison Group and its land group will work according to the original schedules.

On the drafting of the Basic Law of the Hong Kong Special Administrative Region, he said the period of soliciting opinions can be prolonged. He hoped the members of the Basic Law Drafting Committees and Consultative Committees and all the compatriots of Hong Kong and Macao, following the principle of being responsible for Hong Kong, Macao and the motherland, will make efforts to accomplish the historical mission — drafting the basic law.

Ji Pengfei said that it is under-

standable that compatriots of Hong Kong and Macao expressed different opinions and have some misunderstandings for quelling the recent counter-revolutionary riot in Beijing. However, he added, "I must point out that some Hong Kong and Macao people have done something that is impermissible by the state Constitution and law and has in fact added fuel to the flames of turmoil while they were in the mainland."

"During the transitional period and after Hong Kong and Macao have returned to the motherland, the mainland and Hong Kong and Macao will practise two different social and economic systems. The central people's government will neither change the capitalist system nor implement the socialist policies in Hong Kong and Macao," he said.

"Hong Kong and Macao should not interfere in or attempt to change the socialist system in the mainland either, not speaking of allowing some people to use Hong Kong and Macao as a base for subversion of the central government," he added.

"Mainlanders, when in Hong Kong and Macao, should abide by the laws of Hong Kong and Macao; and Hong Kong and Macao compatriots, when in the mainland, should abide by the state Constitution and laws too," Ji said.

Ji said that the majority of Hong Kong and Macao compatriots have made contributions to the prosperity of the country. He said he sincerely hoped the compatriots there would continue to carry forward the fine tradition of loving the country, Hong Kong and Macao and make greater contributions to the prosperity of the motherland as well as to the stability and prosperity of Hong Kong and Macao. □

Martyrs Are Remembered

Three martyrs of the martial law enforcement troops and the armed police who were lynched by rioters during the recent counter-revolutionary rebellion in the capital were widely mourned by tens of thousands of Beijing residents.

Thousands have gone to the spot where the martyrs were killed to express their condolences and indignation at the grisly brutality of the rioters.

On June 12, more than 100 Communist Party members, Youth League members and Young Pioneers representing the No.109 Middle School held a mourning ceremony on the pedestrian overpass in the Chongwenmen Street for the martyr Cui Guozheng who was brutally lynched there by rioters.

They put up a streamer which read "The loyal and heroic spirit of this martyr will be cherished forever in the people's hearts."

Three hundred employees of the Beijing Municipal Works Research Institute made a wreath with 300 small white paper flowers to lay on the Fuchengmen

flyover bridge where martyr Li Guorui had been slaughtered while bringing martial law into effect.

Another 300 Young Pioneers of the North Lishi Road No.1 Primary School also went to the flyover to express their grief by pinning white paper flowers they made to the railings of the bridge.

A middle-aged woman, brimming with tears in her eyes, silently placed a white silk flower carrying the words on it: The martyr is immortal.

Since June 18, top leaders of the Party and government have met the relatives of the three martyrs and expressed their deep gratitude to the three families.

On June 18, when meeting the relatives of the martyrs Liu Guogen, Cui Guozheng and Li Guorui, Yang Shangkun, Chinese president and vice-chairman of the Central Military Commission, said that the three martyrs died in defence of the Party Central Committee, the capital and the People's Republic and they are the pride of the three families

as well as the whole army.

Yang said that he, on behalf of the Central Military Commission and its chairman Deng Xiaoping, came to extend gratitude to the three families.

He said that Beijing had been in chaos for a period of time. Without the resolute measure, the consequences are unimaginable.

He told the relatives of the martyrs that he is fully confident that the Communist Party and the People's Republic, which are supported by the broad masses of people and the Party members and safeguarded by the People's Liberation Army, will never be overthrown.

On June 19, Li Peng, Qiao Shi and Yao Yilin, members of the Standing Committee of the Political Bureau of the Chinese Communist Party Central Committee, also met with the martyrs' relatives.

While extending condolences to the martyrs' families, Premier Li Peng said that the Party and the people thanked the martyrs for their exploits in quelling the rebellion.

"Their death has also awakened thousands upon thousands of people in seeing through the brutal nature of the rebels," he said.

The rebellion has been basically quelled so far and the general situation is heading for stability, Li stated. However, he said, "quite a number of rioters are yet to be apprehended and we can in no way leave them unpunished and let them stage a comeback."

Li stressed that "anyone who had participated in the beatings, looting and robbery or participated in murdering soldiers and police, no matter whether he is a student or not, will be dealt with without mercy."

Meanwhile, many representatives from government departments, organizations, factories, colleges, as well as individuals in

Qian Zhengying, vice-chairwoman of the CPPCC visits officers and soldiers at a city hospital who were hurt by rioters while quelling turmoil in Beijing.

GAO BOHAI



the capital visited the martial law enforcement troops stationed nearby to extend their gratitude to the troops for their contribution in putting down the riot in Beijing.

On June 12, the leading officials of more than 50 colleges and universities in Beijing jointly visited those troops stationed at the Beijing Physical Education Teachers' Institute and were accorded a warm welcome from the officers and soldiers.

Various departments of the Beijing Foreign Studies Institute jointly donated about 10,000 yuan for the martial law enforce-

ment troops.

They brought them many gifts of daily-use articles such as toothpaste, tooth brushes, towels and soap when they found that the soldiers were lacking these things.

On June 14, the authorities and representatives of various departments of the Beijing University, the Beijing Normal University and the Chinese People's University visited the troops stationed at the Capital Stadium in the western suburbs of the city to bring them four truckloads of pork, eggs, watermelons and vegetables. □

News in Brief

Regrets Over UK-JLG Standoff

A Chinese Foreign Ministry spokesman expressed regret June 17 over Britain's unilateral postponement of the 13th meeting of the Sino-British Joint Liaison Group (JLG), which would otherwise have been held in London this July.

The spokesman said that according to the stipulations in paragraph 9 of Annex II of the Sino-British Joint Declaration on the Question of Hong Kong, the JLG should hold at least three meetings annually. Since the beginning of this year, only one meeting, the 12th meeting, has been held. Both sides agreed on that occasion that the 13th meeting would be held in London from July 18 to July 21 this year.

He said that the British government's unilateral announcement to postpone the 13th meeting has thus suspended JLG's regular work. "The British government will be responsible for all the possible consequences arising therefrom, and we reserve the right to make further comments," he added. □

China Criticizes US Interference

The Chinese government firmly opposes the US government's interference in China's internal affairs

and its pressure on China, a Chinese Foreign Ministry spokeswoman said June 22.

Li Jinhua made the remark in response to an AP correspondent's request for China's comments on the announced US move to suspend high-level contacts with Chinese officials.

The Chinese side hopes to maintain and develop Sino-US relations, but this demands mutual respect and a deepening of understanding on both sides, Li said, adding that neither side should do anything detrimental to the two countries' relations. The relations can continue to expand only by abiding by the three Sino-US joint communiques and the Five Principles of Peaceful Coexistence, she said at a weekly news briefing.

The crackdown on the recent counter-revolutionary rebellion is China's internal affairs that no foreign countries should interfere in, she added. □

10 Executed for Rioting Actions

Seven rioters in Beijing and three others in Shanghai were executed on June 22 and 21 respectively.

Lin Zhaorong and other six were sentenced to death by the Beijing Municipal Intermediate Court on June 17 on charges of setting fire to military trucks, stealing military goods and assaulting soldiers of the army during the recent counter-revolutionary rebellion.

The Shanghai Intermediate People's Court sentenced Xu Guoming and other two, who severely damaged transport facilities at a railway crossing, to death on June 15.

The 10 criminals' appeals to the local higher people's courts were rejected. □

KMT Agents Are Smashed

State security organizations in Beijing and other parts of China have cracked down on a number of Kuomintang secret agents who had a hand in students demonstrations and turmoil since this April.

A news release issued by the State Security Ministry June 22 said that the KMT secret service in Taiwan ordered its agents on the mainland to exploit the so-called "democratic movement," escalate it into an overall "anti-communist" movement and collect information for the Taiwan secret service.

Some of the agents have been exposed while others have surrendered themselves to security organizations. □

Record Summer Harvest Expected

China expects to reap three million tons more grain in this summer than last one, that will set a record, according to an official from the Ministry of Agriculture June 20.

The official attributed the increase to good climatic conditions, the enlargement of area planted with food grain crops, the spread of agro-techniques and more careful field management. □

Smooth Run-Up to Asian Games

All preparations for the 1990 Beijing Asian Games, including construction of the main facilities, have been smoothly proceeding, it was announced in Beijing on June 22.

According to an organizer, of the 27 newly-constructed or re-constructed stadiums and gymnasiums, 15 have been finished on schedule while the others will be completed by the end of next September.

Construction of the athletes village, press centre and other facilities has also been progressing, and they will be completed on schedule, he stressed. □

Communique of the Fourth Plenary Session Of the 13th CPC Central Committee

(Adopted on June 24, 1989)

The Fourth Plenary Session of the 13th CPC Central Committee was convened in Beijing from June 23 to 24, 1989. The meeting was attended by 170 members and 106 alternate members of the Central Committee. Attending the meeting as observers were 184 members of the Central Advisory Commission, 68 members of the Central Commission for Discipline Inspection and 29 leading comrades of the departments concerned.

An enlarged meeting of the Central Committee's Political Bureau was held from June 19 to 21 to make necessary preparations for the Fourth Plenary Session.

Analyzing the country's political situation over the past two months, the session pointed out that a very small number of people, taking advantage of student unrest, stirred up planned, organized and premeditated political turmoil in Beijing and some other places, which later developed into a counter-revolutionary rebellion in Beijing. The aim of the turmoil and rebellion they incited was to overthrow the leadership of the Chinese Communist Party and to subvert the socialist People's Republic of China. In this serious political struggle, the policy decisions and a series of major measures taken by the Party Central Committee were necessary and correct and have won the support of the whole Party and the people of the whole country. The session highly evaluated the significant role played in the struggle by veteran proletarian revolutionaries with Comrade Deng Xiaoping as their representative, and the great contributions

Deng Xiaoping delivering an important speech at the Political Bureau's enlarged meeting on June 21.

YANG SHAOMING

made by the Chinese People's Liberation Army, the armed police and the public security police in quelling the counter-revolutionary rebellion in the capital.

The session examined and approved a report on Comrade Zhao Ziyang's mistakes in the anti-Party, anti-socialism turmoil delivered by Comrade Li Peng on behalf of the Political Bureau of the Central Committee. The session held that at a critical juncture involving the destiny of the Party and the state, Comrade Zhao Ziyang made the mistake of supporting the turmoil and splitting the Party and he had unshirkable responsibilities for the development of the turmoil. The nature and consequences of his mistake are very serious. Although he did some things beneficial to reform, the opening of China to the outside world and economic work when he held principal leading posts in the Party and the government, he obviously erred in guidelines and practical work. Especially after taking charge of the work of the Central Committee, he took a passive approach to adherence to the four cardinal principles and opposition to bourgeois liberalization, and gravely neglected Party building, cultural and ethical development and ideological and political work, causing serious losses to the cause of the Party.

In view of Comrade Zhao Ziyang's serious mistakes listed above, the session decided to dismiss him as general secretary of the Central Committee, member of the Standing Committee of the Political Bureau of the Central Committee, member of the Political Bureau of the Central Committee, member

Jiang Zemin speaks at the Fourth Plenum of the 13th Party Central Committee.

WANG XINQING



of the Central Committee, and first vice-chairman of the Military Commission of the CPC Central Committee, and decided to look further into his case.

The session made necessary partial adjustments in the Party's central leadership. Comrade Jiang Zemin was elected general secretary of the Central Committee; Comrades Jiang Zemin, Song Ping and Li Ruihuan were elected members of the Standing Committee of the Political Bureau of the Central Committee; Comrades Li Ruihuan and Ding Guangen were made members of the Secretariat of the Central Committee; Comrade Hu Qili was removed from the Standing Committee of the Political Bureau of the Central Committee, and from the Political Bureau of the Central Committee and from the Secretariat of the Central Committee; Comrades Rui Xingwen and Yan Mingfu were removed from the Secretariat of the Central Committee.

The session highly evaluated the important speech made by Comrade Deng Xiaoping at a meeting with corps commanders of the martial law enforcement troops in the capital, unanimously believing that the speech is a programmatic document for us to review the past, look forward to the future and unify the thinking and understanding of the whole Party. The session stresses that the line, principles and policies adopted since the Third Plenary Session of the 11th Central Committee of the Party will continue to be resolutely implemented, and the basic line consisting of the "one focus and two basic points" established at the 13th National Party Congress will also continue to be resolutely carried out. The four cardinal principles, as the foundation of the country, must be adhered to unswervingly and consistently and the policy of reform and opening to the outside world, as the road to lead the country to strength and prosperity, must be implemented as usual in a steadfast manner. The country must not return to the old, closed-door path. At present, special attention should be given to the following four important tasks: The first is to resolutely stop the turmoil and quell the counter-revolutionary rebellion, strictly distinguish between the two different types of contradictions and further stabilize the situation of the whole country; the second is to continue to carry out the policy of improving the economic environment and rectifying the economic order so as to better implement the policies of reform and opening to the outside world and develop the economy in a sustained, steady and co-ordinated way; the third is to earnestly enhance ideological and political work and make great efforts to carry out education in patriotism, socialism, inde-



On the rostrum. From left: Song Ping, Qiao Shi, Jiang Zemin, Li Peng, Yao Yilin, Li Ruihuan.
WANG XINQING

pendence and self-reliance, plain living and hard work, and oppose bourgeois liberalization in real earnest; the fourth is to greatly enhance the building of the Party, democracy and legal system, resolutely penalize corruption, and accomplish a few things of popular concern so as to live up to the people's expectations of the Party.

The plenary session is an extremely important meeting in the historical development of our Party. It will not only play a major role in further stabilizing the situation of the whole country at present, but will also exert far-reaching influence on ensuring the continuation of the Party's line, principles and policies adopted since the Third Plenary Session of the 11th Party Central Committee.

The session reiterated that China's independent foreign policy of peace remains unchanged. China will continue to develop friendly relations with all countries on the basis of the Five Principles of Peaceful Coexistence and continue to contribute to maintaining world peace. The session believes that China's just struggle to quell the counter-revolutionary rebellion will be understood by peoples of all countries and the friendly ties between the Chinese people and peoples of other countries will continue to develop.

The plenary session called on the whole Party and people of all nationalities of the country to unite more closely around the Party Central Committee, be of one heart and mind, work hard to overcome all difficulties which lie in the path of advance and confidently push forward the socialist modernization of the country and the cause of reform and opening to the outside world. □

"One focus and two basic points" refers to making economic development the nation's central task while adhering to the four cardinal principles (that is, keeping to the socialist road and upholding the people's democratic dictatorship, leadership by the Communist Party, and Mao Zedong Thought) and persevering in reform and the open policy.

Spokesman on Current Situation

On June 17, Yuan Mu, spokesman for the State Council, in a televised interview with Tom Brokaw, anchorman of the US National Broadcasting Company, pointed out that most Chinese people support the leadership of the Communist Party and do not want to see the government subverted. Reporters from China and abroad were present at the interview, which lasted about 45 minutes. —Ed.

Question: Mr. Yuan, thank you very much for being with us tonight. The whole world is interested to know just what happened in Tiananmen Square. Did Deng Xiaoping give orders that PLA (the People's Liberation Army) troops move onto the demonstrators?

Answer: The PLA troops marched into Tiananmen Square to enforce martial law and restore order in the capital. In the whole process of clearing the square, there was no casualty. No one was shot down or crushed under the wheels of armoured vehicles. The reports abroad that there was a blood-bath and many people were crushed were incorrect. The students then occupying the square withdrew peacefully in rows and waving banners.

Q: Mr. Yuan, I find that an astonishing statement on your part. We have literally hundreds, thousands of feet of videotape showing students being shot down, innocent bystanders being shot near the hotel. Neutral observers not only from Western nations who are journalists but also from around the world and others, including people from your own country, witnessed people being shot in Tiananmen Square at point blank range by troops. Unarmed demonstrators. How is it possi-



ble that you and your leaders do not believe that someone there was hurt?

A: I did not say that no casual-

ties resulted from our efforts to put down the counter-revolutionary rebellion. I only said that no one died when the PLA cleared Tiananmen

Square.

As for the entire process of putting down the counter-revolutionary rebellion, some thugs were shot dead and some onlookers were accidentally killed or wounded. The PLA suffered great casualties.

I already made these facts clear at the press conference on behalf of the State Council on June 6. The number of wounded PLA officers and men exceeded 5,000 and the number of wounded people including thugs and onlookers exceeded 2,000. The total death toll is about 300.

Nowadays there are widespread reports in the foreign media that during China's efforts to put down the counter-revolutionary rebellion, thousands — even tens of thousands — of people died. This is not the correct situation but an exaggeration and distortion.

In my view, one important reason for the airing of such incorrect reports is that foreign reporters themselves are not very clear about the nature of the recent events in Beijing.

The truth is that a handful of thugs and hooligans instigated a counter-revolutionary rebellion to overthrow the leadership of the Communist Party of China and alter the socialist system. The PLA troops were ordered to suppress the rebellion. But in the process, innocent people got mixed up with thugs. Therefore, the PLA exercised maximum tolerance and restraint and did not fire upon entering the city for fear of hurting onlookers and good people.

Had the PLA opened fire upon entering the city, they would not have suffered such big casualties or had their weapons and ammunition snatched from them by thugs and hundreds of their vehicles burned. This is common sense.

Of course, in the process of

suppressing the rebellion, some onlookers were also accidentally killed and wounded. We are deeply distressed and disturbed about this. But first of all, we have to express our profound grief for those PLA soldiers who died in the process of putting down the riots, because they performed immortal deeds and made contributions to safeguarding the people and the People's Republic.

Also, I think in any sovereign nation the government has the right to take all necessary steps to prevent subversion. This is entirely an internal affair of that sovereign nation and no other country has the right to interfere.

Q: Mr. Yuan, with all due respect, I must challenge almost all of those premises. First, again, outside observers, including trained Western journalists, saw hundreds, perhaps thousands, of young people and innocent bystanders both wounded and killed. While they did see some soldiers killed and wounded, they did not see them in nearly the same amount as they saw of the demonstrators who were killed and wounded. Moreover, you described the demonstrations as being led by a small handful of hooligans and thugs. Isn't that an insult to the millions of Chinese across this nation in many cities — teachers, shopkeepers, workers, even Chinese journalists who joined in the demonstrations for more democracy, for less corruption in the leadership of your country?

A: First of all, I would like to correct one of your notions. I have been talking of a counter-revolutionary revolt that we are putting down. Our views on the student demonstrations since mid-April have been consistent:

First, their wish to eliminate corruption and bureaucratic profiteering, promote democracy and deepen reform is good and in conformity with the aim and goals of the Party and the government.

However, the students' demonstrations have been made use of by some bad people behind the scenes to instigate the turmoil and even counter-revolutionary rebellion.

We have never regarded the vast number of students as rioters, but it is indeed a fact that there are some rioters among the students. As for the hundreds and perhaps thousands of deaths that you mentioned just now, I have already told you the actual figures that are close to fact and I hope that you will not believe the exaggerated versions.

We did not approve of the parades and demonstrations staged by the students because there are laws governing demonstrations and parades. It is true that according to the constitution, people have the right to stage demonstrations, but other people's freedoms and rights must be guaranteed and must not be impeded, and also transport and so on must not be hampered.

Therefore, the People's Congress of the Beijing Municipality has worked out regulations governing such demonstrations and parades. We do not approve of the students' defiance of these regulations.

The most important thing I want to say is that a few counter-revolutionary rioters who got mixed up with the students even put forward programmes and chanted slogans for overthrowing the leadership of the Communist Party of China and for subverting the socialist republic of the people. This was the motivation and purpose of the riots.

We must never let them succeed in that. Their slogans are entirely different from the demands put forward by the students in the early stages of their demonstrations for greater freedom and democracy.

Q: One of the people you have identified as a counter-revolutionary, a traitor to China, is Fang Lizhi, a well-known dissident who is now receiving protective asylum in the United States embassy. Are you considering invading the US embassy to arrest him?

A: The Chinese public security department has issued an arrest warrant for Fang, who violated Chinese law by committing the crime of counter-revolutionary demagoguery.

We know that he has slipped into the US embassy in Beijing and we are closely following further developments. We hope that the US government will deal with this matter discreetly.

Q: Would you expect that there is a possibility that Fang Lizhi can be sent to a third neutral country?

A: I have just said, we hope that the US government will deal with this matter discreetly. Our public security department has issued an arrest warrant for Fang. We will bring him to justice.

Q: Would you expect that if he is brought to justice in China, that he will be tried, and perhaps sentenced to death?

A: Following arrest, Fang will be dealt with according to Chinese legal procedures and punishment will be meted out according to law.

Q: Mr. Yuan, what's going on in

the leadership of China? Is Zhao Ziyang now ousted as the general secretary of the Communist Party? Do you have a new general secretary?

A: The recent meeting between Chairman Deng Xiaoping and commanders of the martial law enforcement troops in Beijing tells the entire world that the Chinese leadership is stable.

However, so far as I know, a certain individual in the top leadership erred in supporting the riots. The problem will be dealt with and made public soon. The problem is one within the Party and will be dealt with in accordance with the Party Constitution.

Q: Is it possible that some of the leaders, including Zhao Ziyang, could be put on trial?

A: I have just said that the problem of a certain individual in the top leadership is one within the Party and will be dealt with in accordance with the Party Constitution.

Q: Mr. Yuan, how can you expect American and other businesses from the West to come back into China after the troubles this spring if they realize that the people here can only be controlled by the barrel of a gun?

A: I think that they will learn the true situation. The Chinese government is in full control and only parts of Beijing are under martial law, with important positions safeguarded. The martial law in Beijing is very different from military control and different again from military control of the whole country. No other place in China is under martial law except Lhasa, the capital of the Tibet Autonomous Region, as a result of di-

sorder caused by a few separatists not long ago.

I ask you to take back a message to the US business community: China's policy of reform and opening to the outside world remains unchanged. Chairman Deng Xiaoping mentioned in a recent speech that China has not gone far enough in opening to the outside world and that China will continue to stand by this policy. Naturally it must be within the guidelines of the socialist system. Our policy of reform and opening to the outside world remains unchanged. We hope American friends who were in China and engaged in economic co-operation and trade exchanges with China will come back soon. We also welcome more American traders to trade, invest and set up enterprises in China.

Q: Mr. Yuan, again we have time for one more question. How can you expect any one in the West to believe your assurances that China is open for business again if your government continues to tell the rest of the world that there were only a few casualties in Tiananmen Square, that the soldiers suffered more than the civilians and that the demonstrations and the whole reform movement were run, in fact, by just a small handful of hooligans and ruffians when there is so much evidence to the contrary? Isn't China running the possibility of losing its place of honour in the world of nations?

A: I think that when the distorted coverage of the rebellion in the foreign and domestic press is ignored and the entire world comes to learn the truth of the situation, the fact that China still sticks to the policy of reform and opening to the outside world will win the confidence of

the vast majority of countries, and their industrialists and entrepreneurs. China is a very attractive market.

If foreigners become aware of the true situation, they will certainly increase their investments in China. Another fact which can prove this is that even during the counter-revolutionary rebellion, not all foreign industrialists and entrepreneurs left China and a considerable proportion of them stayed on to continue their trading and investment activities. They know that their safety can be guaranteed and their operations can be assured of normal functioning. I am sure that those people who left hastily will regret it one day, but it is not too late to come back now.

I'd like to add a sentence here: The position and attitude of the Chinese government has always been to draw a clear distinction between the vast number of students who have participated in demonstrations and parades — though that was a wrong approach — and the small number of thugs who have resorted to the students' demonstrations to stir up turmoil and even counter-revolutionary rebellion.

The government will pay adequate attention to the reasonable demands presented by the students in the course of their demonstrations. I have repeatedly declared on behalf of the State Council that dialogue between the government and students and people from other circles will continue. We will listen to their views, adopt their correct suggestions and improve the work of the Party and government.

Q: Mr. Yuan, you have already sentenced three people to death in Shanghai, the so-called hooligans and ruffians. Do you think that there will be many trials

and many executions in China in the coming months?

A: Those who have been sentenced to death in Shanghai are guilty of the most heinous crimes, because they have disrupted traffic and set fire to railway carriages. I think that the very few persons who committed such heinous crimes will be given due punishment. For example, a PLA soldier was thrown from an overpass, his body burned with petrol, but he was not quite dead. Then his body was hung up and put before the public. If rioters as cruel as this were not severely punished, the people would not accept it.

Finally, I want to convey, through you, a piece of information to the American and world audience: The socialist People's Republic of China was established by the Chinese people under the leadership of the Communist Party of China through decades of strenuous efforts and at the cost of more than 20 million lives. The overwhelming majority of the Chinese people support the leadership of the Chinese Communist Party and the People's Republic of China. They do not want to see them subverted. This is the most fundamental fact. Any attempt to subvert the leadership of the Chinese Communist Party and the socialist People's Republic of China is doomed to failure.

China hopes that the people and governments of all other countries will understand the true nature of the counter-revolutionary rebellion and the measures taken to quell it, which I deem justified. We declare that China will stick to the policy of developing friendly relations with all other countries of the world on the basis of the Five Principles of Peaceful

Coexistence. This is a policy we will adhere to unswervingly.

Q: Mr. Yuan, there are 40,000 Chinese students studying in the United States. Do you expect that many of them will return to China? In America they are telling reporters and others who will listen that they prefer to stay in America.

A: I am sure that the overwhelming majority of the Chinese students studying in the United States will certainly return to their homeland to serve their country. I cannot rule out the possibility that some may not be willing to return and I express regret about it. Personally, I really, sincerely hope they will come back. I am sure that they will come back.

Q: Do you expect that you'll have to throw out more Western reporters from China?

A: Men and women foreign journalists who carry out fair and objective news reporting on the situation in China, refrain from violating China's martial law orders and other laws, and carry out normal news gathering activities will have their legitimate rights to news gathering respected and protected by the Chinese government just like you.

Finally, Mr. Brokaw repeated his second question, changing his reference to "hundreds, thousands" of feet of videotape to "miles" of videotape.

Yuan Mu said: The development of modern technology has provided this possibility for some persons. They can record longer videotapes than you just mentioned to distort the real situation. Thank you for your interview with me. □

THREE GORGES PROJECT (1)

Dream and Reality

In this issue we publish the following three articles on the controversial Three Gorges Project.—Ed.

by Our Staff Reporter Yao Jianguo

To build a mammoth dam providing flood control and electricity in the Three Gorges, the most precipitous section of the Changjiang (Yangtze), the world's third-longest river, has been the dream of several generations of Chinese since the time of Dr. Sun Yat-sen, forerunner of China's democratic revolution.

Can such a dream come true, and if so, when? To answer this question, a large number of Chinese and foreign experts and scholars have spent years in painstaking feasibility studies. However, sharp differences have arisen over the project and up until now are far from resolved.

On March 7, 1989, more than 400 experts and scholars in Beijing announced the end of their re-study of the Three Gorges water conservancy key project, and submitted a report of their feasibility study to the State Council for approval. The report advocated an early start of the project as being advantageous to national economic construction. Despite the fact that vice-premier Yao Yilin promised before the symposium that the project would not be started in the near future, the results of the final report still stirred up a new round of opposition. The heated debate was without precedent in the history of New China's architectural engineering.

The Three Gorges project also has aroused concerns abroad. Listed as the first of the world's 20 most terrifying giant dams under consideration, it became

the focus of attention at the 1988 international river system symposium held in San Francisco, USA. Adopting the correct decision on building a dam of such tremendous impact must be based on more convincing scientific evidence than has been presented so far. For this reason, feasibility studies on the project were conducted at two separate times in the 1980s.

First Feasibility Study

In 1983, the office in charge of the Changjiang valley project issued a feasibility study report recommending a draft resolution in favour of a reservoir retaining water at a 150-metre-high level. This was examined by 350 experts organized by the State Planning Commission.

In April 1984, the report was approved in principle by the State Council. Preparations for setting up a Sanxia (Three Gorges) Province followed. The prospect of a Three Gorges project, which had laid dormant for more than 20 years, suddenly became the focus of intense discussions across the country. Many people were for it, but there was no lack of opponents. Differing views grew particularly divergent during meetings of the Second Session of the Sixth National People's Congress and the Sixth National Committee of the Chinese People's Political Consultative Conference. Following problems encountered in building Shanghai's Baoshan Iron and Steel Complex and Guangdong's

Dayawan Nuclear Power Station, in the case of the proposed Three Gorges project, deputies to the National People's Congress and members of the CPPCC could not but demand further explanations as a basis for discussion and resolution.

An objection was raised in November 1984 by Chongqing city government, located in the upper reaches of the Changjiang, and concerned departments in charge of Changjiang navigation under the Ministry of Communications. They considered the normal water-retention level of 150 metres in the reservoir to be inadequate for future navigation on the Changjiang, and suggested raising the level to 180 metres to allow 10,000-ton-class ships to ply smoothly between Wuhan and Chongqing.

At the Third Session of the CPPCC Sixth National Committee held in March 1985, some members again queried the validity of the proposal, advocating outright cancellation or postponement of the project.

In July 1985, an investigation group made up of members of the Economic Commission of the CPPCC went to the Three Gorges area. After their on-the-spot investigation, they submitted a report to the Central Committee of the Chinese Communist Party and the State Council pointing out that the Three Gorges project calls for huge investments, a relatively long period of construction and the displacement of large numbers of local inhabitants. Moreover, the

project may result in floods on the upper reaches of the river caused by silt. In addition, other problems may arise such as earthquakes induced by the reservoir, and damage to the ecological environment. In short, the project seems to present the people with more disadvantages than advantages. Therefore they suggested that tributaries of the Changjiang should be developed first, then its mainstream, in light of the river's concrete conditions. They hoped the central government would not make a final decision before the completion of further feasibility studies.

Re-study on the Project

In April 1986, some Party and government leaders led some officials of departments concerned to the Three Gorges for investigation. After finishing, they issued a circular pointing out that in view of some existing problems and some new suggestions raised recently, a deep-going feasibility study of the project should be carried out economically and technically. They hoped the study would be more



At the 10th enlarged leading group meeting on the feasibility study for the Three Gorges project.
XU CHANGJUN

careful, more accurate and more reliable. In addition, they asked the Ministry of Water Conservancy and Power to organize discussions attended by experts in various fields, especially those holding different views. Full scope should be given to democracy in technical discussions. They also asked for a new report of a feasibility study based on scientific evidence to be submitted

to the central government for final decision.

Since the founding of New China, this was the first time the central government ordered a re-study of a project that it had already approved in principle. On the one hand, this shows that the central government takes an active and cautious attitude towards the Three Gorges project which has drawn the attention of the whole world. On the other hand, it indicates that the central government has moved in the direction of democracy and science in their macro-decision-making.

In June 1986, Qian Zhengying, Minister of Water Conservancy and Power, announced the founding of a leading group headed by her, to take charge of the new feasibility study. The group invited 21 experts and scholars with rich experience and high prestige to act as advisors, 412 experts to work at the actual re-study.

The re-study itself covered more than 40 specialties including natural sciences, engineering technology, social sciences, finance and economy, ecological environment, systems engineering and civil air defence. In ad-

The Three Gorges Project

The proposed Three Gorges project will be built on the upper stream of the Changjiang River at Sandouping, on the Xiling Gorge, at a distance of more than 40 km from the Gezhouba Dam, the first water conservancy project built on the Changjiang mainstream. The new mammoth undertaking envisages facilities for flood-control, power, navigation and irrigation.

These include a dam across the river, flood-discharge channels, hydro-power stations and navigation passages. The dam will be 185 metres high, with a water-retaining level of 175 metres. The draft to be adopted features the principles of "first-grade development, completion of the dam at one stroke, retaining water by stages and gradual resettlement of population." Hydropower stations will be installed with 26 generating sets, with a total generating capacity of 17.68 million kilowatts, supplying 84 billion kwh a year.

The project, to be built in three stages, will take 18 years. The plan stipulates that from the 12th year, the first group of generating sets will be providing electricity. Population resettling is to be spread out over 20 years. □



On June 9, Chairman of the Central Military Commission Deng Xiaoping received and made an important speech to army commanders and higher-ranked officers of the martial law enforcement troops in Beijing.



On June 17, 10,000 young pioneers of Beijing held a gathering with the theme "Love the Communist Party of China and love our socialist motherland" at the Tiananmen Square recently swept clean. Some officers and men of the martial law enforcement troops attended.



A horrifying counter-revolutionary rebellion broke out in Beijing on June 3. In attempt to subvert the People's Republic, a handful of rioters incited innocent people to attack major government departments, set fire to police watchtowers, army vehicles and public buses and intercept martial law enforcement troops advancing into downtown Beijing and Tiananmen Square. Pictured are vehicles set ablaze by rioters.

(Photos by Li Jing, Wu Jinsheng,
Yuan Xuejun, Yang Ziheng,
Zheng Shufu and Tao Junfeng)

A riot scene at the Muxidi area in western Beijing.



Rioters set buses ablaze. A
cles, and some 100 public
during the riot.



During the rebellion, dozens of PLA and armed police officers and men were killed and more than 5,000 wounded. Here are some of the wounded officers and men.

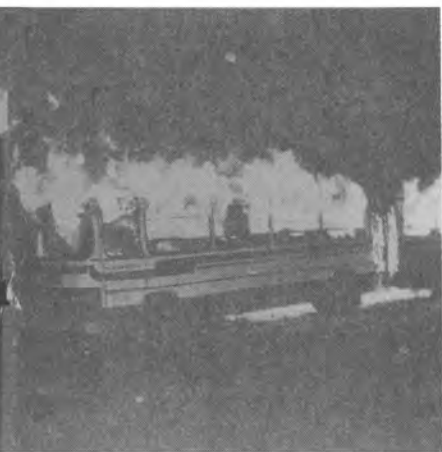
On the evening of June 3, advancing with the roadblocks cleared.



Some of the rioters were caught red-handed.

At Beijing's Xidan intersection, Liu Guogeng, a second lieutenant of the martial law enforcement troops, was first beaten to death (upper left), then burned (right) and disembowelled (lower left).

Martial law enforcement troops began cleaning up Tiananmen Square soon after all students left at 5:30 am, June 4.



Together more than 500 military vehicles and trolley buses were burned





Martial law enforcement troops sent food grain to residents soon after they quelled the riot.



A greengrocer in Beijing's Fengtai District sent vegetables to martial law enforcement troops.

Grandmother Zhao Zhenni visits the martial law enforcement troops to greet the PLA officers and men.



Ma Xiaomin, a student of the Beijing No. 140 Middle School, risked his life to take to safety four PLA officers and men in danger of being attacked by rioters on June 4.

dition to experts in water conservancy and power, there were 213 experts and scholars engaged in other special fields, accounting for 51.7 percent of the total. The feasibility study team included 15 members of the General Assembly of the Chinese Academy of Sciences, 355 associate professors, associate research fellows and senior engineers.

It can be said that they are outstanding representatives on China's water conservancy front and other related areas.

The project re-study was conducted in two steps. Through all-around analysis and discussion, they first drew up a draft resolution on a water-retention level that would not only satisfy the minimum demands of both economic departments and localities, but also make allowances for such restrictive factors as earthquake risk, erosion, mud, ecological environment and population resettling. This would

A view of Qutang Gorge.



lay a good foundation for the study. In April 1987, at its fourth enlarged meeting, the leading group passed a draft resolution which set the height of the dam at 185 metres, and the normal water-retention level at 175 metres. The project will be built on the principle of "first-grade development, completion of the dam at one stroke, retaining water by stages, and gradual resettlement of population."

In the second step, experts were divided into 14 groups to take up re-study of different subjects centring on the draft. Each group did its work independently, ranging from drafting work outlines, organizing investigations, conducting experiments, and making calculations to drafting, revising and finalizing their reports on the feasibility study. The leading group did not interfere in the concrete work. All experts were free to air their views based on scientific study of

the project. They reserved the right to sign or not to sign the final report.

Different Opinions

According to published materials, out of the 14 feasibility study reports, 9 reports governing geological earthquakes, hydrology, silt, key buildings, machinery and electrical equipment, construction, appraisal of investment, population resettling, and navigation were passed by all experts and advisors by signature. There were 10 experts and advisors who did not sign their names on five other reports on ecological environment, flood control, power, comprehensive programme, water level and comprehensive economic evaluation because they disagreed with the conclusions of these reports.

Famous ecologist Hou Xueyu, member of the General Assembly of the Chinese Academy of Sciences, was the only expert who did not fix his signature to the report on ecological environment. He considered that the Three Gorges project poses a great threat to the ecological environment: Land resources will be under water, the loss of tourist resources irretrievable; landslides pose a potential threat to the dam; population resettling for development will lead to new pollution and erosion; the reservoir will affect fish swimming to the upper reaches to spawn and offshore fishing grounds.

The feasibility study on the project, which lasted two years and eight months, was carried out in the midst of heated debates. Differences over the dam not only came from experts, but also from some members of the CPPCC attending the 10th meeting of the group, centring around on the problems of silt, earthquake risk, population resettling, ecological environment, investment estimates, and state finan-

cial resources. Some suggested putting off the project well into the 21st century, to be solved by later generations. All these divergent views have been submitted to the State Council along with the report.

Besides the domestic study, a consortium of five Canadian government institutions and private companies issued a favourable independent report after

completing their own feasibility study which started in 1986.

According to reports announced by both sides, their conclusions agree on major points. The only difference concerns reservoir water level. The Canadian side considered that the impact of the Three Gorges project on environment, reservoir inundation and resettling of 750,000 local people on higher areas can

be properly handled. No other draft involving less expense could provide such efficiency in flood control and power generating. Therefore, the Canadian consortium expressed its willingness to give energetic support to the proposal for building the Changjiang dam at the highest cost in the world, to provide flood control and power. □

THREE GORGES PROJECT (2)

Main Points of the Feasibility Study Report

Reexamination of the Three Gorges Project is finished and *A Report on the Feasibility Study of the Three Gorges Key Water Conservancy Project* has been issued in March 1989, both of which took experts two years and eight months. An investigation committee of the State Council is responsible for examining the report. On the basis of previous proofs of 14 special topics and with the help of voluminous research materials of the past, the report concluded that the project is technically feasible and economically worthwhile and that it is better to build it than not to and to build it earlier is better than later. The following main results have been confirmed.

Flood Control Function

During the past 2,000 years since the Han Dynasty, there have been 214 flood disasters by the Changjiang (Yangtze) River. Among them, 11 occurred in the last 70 years, causing heavy losses. Therefore, the project is focussed on flood control.

The report suggests planning the Three Gorges dam at a site over 40 km up river from Yichang, close to the section of the Changjiang River in Hubei Prov-

ince (otherwise called Jingjiang River), most urgently in need of flood control. Geographically, the location is excellent, over 95 percent of flooding on the Jingjiang River section and two-thirds of any flooding above Hankou can be controlled and regulated from here. This would be the most effective way to control floods on the middle Changjiang River, and prevent destructive disasters on the Jingjiang. The dam would be an indispensable part of the flood-control system on the middle and lower reaches of the Changjiang.

The suggested dam will be 185 metres high with a normal water storage of 175 metres. The Three Gorges Reservoir, designed to have a flood control capacity of 22.15 billion cubic metres, will raise the Jingjiang's flood control capacity to the extent that a big flood occurring once a century such as that of 1931 can be prevented. Even such a big flood as that of in 1870 happening once a millennium can be prevented from creating disaster through the regulating of the Three Gorges Reservoir and the coordinating of the Jingjiang flood-diversion area plus other flood-diversion and flood-discharge measures.

After the proof and comparison of two alternative schemes—to build reservoirs on upper reaches of the Changjiang River or to enlarge the flood-discharge capacity in the middle and lower reaches—the report concluded that reservoirs are very helpful in local flood control and irrigation, but limited in their function of flood control in the middle reaches. The scattered distribution of these reservoirs and the location of part of them outside the rainstorm region are chiefly responsible for the limitation of their flood control function in the middle reaches. Besides, it is impossible to store or block the flood waters from the rainstorm region of about 300,000 square kilometres in area, lying between these reservoirs and Yichang, unless the Three Gorges Reservoir is built.

The report argues that even if the Three Gorges Reservoir is not built, flood control in the middle and lower Changjiang River can still be taken care of by solidifying dykes and dams, building flood-control project in flood-diversion and flood-storage area as well as completing their safety installations. However, flood disasters on the Jingjiang River will still constitute a great



Drilling in the river.

threat.

Electric Power Benefit

The Three Gorges course has a steep drop and centralized hydroelectric resources. The report takes it as a giant energy resource of western China's hydroelectric resources nearest to the load center of central and east China's power network. The future Sanxia hydro-power station will be the biggest in the world with 17.68 million KW of installed capacity and 84 billion kwh of annual generated energy substituting for 40 million tons of coal. Although the whole Three Gorges project will need a long time and a huge investment, 12 years after preparation for the construction begins, i.e. 9 years after formal construction starts, it will begin to generate electricity. Till then, the investment will be only half of the total. In the six years after that, the annually increased production of electricity will be 2.7 million kw, or the installed capacity of the Gezhouba hydro-power station. The Three Gorges Project is much more profitable than others in terms of time- and investment-effectiveness. The investment index of the Sanxia hydro-power station is also superior to that of thermal power plants when taking the latter's time and investment for coal mines and railway

construction into account. In addition to this, the substitution of the Sanxia hydro-power station for thermal power plants can result in great environmental benefits. Each year it can lower the discharge volume of sulphur dioxide by two million tons, carbon monoxide by 10,000 tons, nitrogen oxide by 370,000 tons and a great deal of industrial waste water. Furthermore, the project will significantly help to diminish the harm of environmental pollution such as acid rain.

Shipping Conditions Improved

The total shipping mileage of the Changjiang River and its branches surpasses 70,000 kilometres, accounting for 80-90 percent of China's total inland water navigation lanes. But the Chongqing-Yichang course's drop reaches 120 metres. There are 139 dangerous shoals in the rushing current, only allowing passage for ships under 3,500 tons and sending cargo-costs fairly high.

The special topic teams had proposed two schemes, one of them was to gradationally exploit and develop the Sichuan course of the Changjiang River by canalizing it; another was to build reservoirs on the upper reaches and to dredge the channel. But through research and

comparison, shipping experts voted down two plans for reasons of economy and practicability.

The report takes the Three Gorges Project as the best option to improve shipping conditions on the Changjiang River passing through Sichuan Province. Backwaters will reach Chongqing when the project is completed, basically improving shipping conditions from Chongqing to Yichang for a length of 660 kilometres. Fleets of 10,000 tons will be able to directly arrive at the port of Chongqing. Great increases in shipping efficiency and shipping volume, and decreases in shipping costs of 35-37 percent will emerge after dangerous shoals are submerged, the channel depth is increased, the bank slopes become more gradual and the flow slows down. A higher degree of shipping safety also can be assured. Meanwhile, the lowest water-discharge below Yichang will rise from the current 3,000 cubic metres per second to 5,000 cubic metres per second, deepening the channel depth of the Jingjiang during the dry season, and facilitating channel maintenance and shipping transport.

Geological Structure and Earthquakes

In the process of reconfirming, experts have newly surveyed and studied the geological conditions of the dam site at Sandouping, its local crust stability and possibility of reservoir-caused earthquake. The report concludes that the base of the dam-site is composed of granite, which has an integrative lithology, high mechanical intensity and weak soakage; there are no active geological rifts or serious unhealthy geological tendencies within the scope of ten kilometres. The project's favourable geological conditions are suitable for building a high concrete dyke.

The reservoir surrounded by the thick water-proof stratum has excellent retaining conditions, without any problem of seepage.

The report argues that around the dam-site earthquake phenomena are inconspicuous, weak and infrequent. Earthquake records of the 2,000 years prior to 1959 show that within 300 kilometres of the site, there had been 19 earthquakes among which three had a shock of 6.5 magnitude and one of 6.25 magnitude; all occurred 200 kilometres away from the site. Even those of 5-6 magnitude were 130 kilometres away. Therefore, the reservoir district generally has a relatively good crust stability, a typical weak-earthquake geological environment. The state seismological departments have determined and ratified the basic earthquake intensity of the area as 6 degrees.

In respect to a project still under consideration, the Three Gorges Project is quite unique in the world in terms of the scope and depth of the research into reservoir-caused earthquakes un-

dertaken. The report deems that experts have to a large extent realized the possible dangerous outcome that reservoir-caused earthquake might bring about and consequently have offered a set of feasible evaluating methods, though the mechanism of its formation and process of development have so far not been essentially uncovered in the stage of exploration. At the present time, the possibility of a reservoir-caused earthquake in parts of the area still exists, but even if it occurs, no serious harm can threaten the project's safety because of its geological advantages and some rational earthquake-proof designs.

About Landslide

The edge of the Three Gorges Reservoir is 1,300 kilometres long in all, and mainly composed of solid rock without large areas of accumulated loose materials. Therefore, according to the report, the reservoir has fairly good conditions for geological stability. Once water is stored in

the reservoir, it may cause parts of the bank to become loose or some layers of land to begin sliding, but this cannot affect the basic stability of the edge.

Currently, along the bank of the river's mainstream, experts have found 270 spots prone to collapse or landslide, each of them exceeding 100,000 cubic metres, the total volume reaching 1.7-2.0 billion cubic metres. Eight of them, over one million cubic metres in total volume, are still developing while 14 show signs of instability, bringing the total to 320-390 million cubic metres. If all the bulk of these 22 potential collapses and landslides became destabilized and plunged into the water, it would have little effect on the capacity and durability of the reservoir. Scattered along the banks as they are, not one of them could block up the river if it fell into the water-stored reservoir, or form "a dam in front of the dam." In addition, the Sanxia Reservoir will widen the water surface 200 to 800 metres and deepen the water depth by dozens or even one hundred metres, so that any chance of obstruction to shipping due to collapses or landslides would be rendered highly unlikely.

Silt Problem

The report concludes: The silt system in the Three Gorges can not perceptibly increase or decrease judging from research results, various angles and the present materials on silt. In recent decades, soil erosion in some areas along the upper reaches of the Changjiang River has increased, however, the annual silt discharge volume in the main stream as monitored at Cuntan and Yichang stations has not yet grown apparently, mainly because of a combination of factors in the upper reaches including geology, land forma-

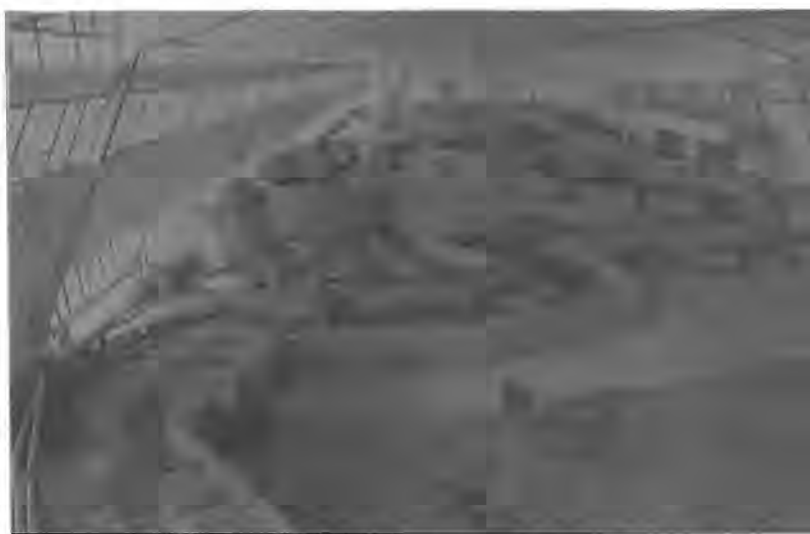


Heavy-calibre geological drilling.

tion, climate and rain. During 1981 and 1984, storm concentrating in the heavy silt-producing zone resulted in a higher silt discharge volume at Yichang, a phenomenon which has also previously occurred in history. Since 1985, the silt volume has dropped below the average figure. Therefore it is reasonable to take the silt data obtained over the years from actual measuring as the basis of the silt research in the Three Gorges project.

The reservoir effective storage capacity has long been a hot question. According to the point of the report, the Changjiang River possesses abundant water and low silt content. In light of the practical experiences of the Sanmenxia and Heisonglin reservoirs as well as the demand for flood control in the middle and lower reaches, the Three Gorges project will be operated like the following: when the silt volume increases in the flood season, lower water level will be maintained in the front of the dam in order to discharge the silt and lessen the deposit of silt in the rear of reservoir; when the silt content is less at the end of flood season, the water level will be increased gradually to the normal storage level. When the dry season of the second year arrives, the water level will be lowered in order to satisfy the demand for power generation and river transportation. According to the calculations, by employing this method, after the Three Gorges reservoir works for 100 years, the regulation storage capacity for electric power generation will still remain at 91.5 percent, and at 86 percent for flood prevention. The reservoir can be used for a long time.

In regard to the impact of the Three Gorges project on the Changjiang River mouth, the report said, due to the 31-36 percent silt displacement rate at the



Experimental research on the silt model for the project.

early working period, the silt particles basically, will not settle in the reservoir; at the same time, the stretch more than 1,800 km. down-river from the dams is plentiful in silt, thus, the total silt volume in the Changjiang River mouth will not perceptibly decrease, nor will it affect sea beach development adversely.

Then what about the effect of silt up-stream from the reservoir—Chongqing Port? The report states: After the Three Gorges reservoir has been working many years and experiencing extremely dry years as well as silt-bumper years, some sections of the river may temporarily lack sufficient width and depth for transportation and navigation. However, these problems can be solved by means of optimizing the reservoir regulation, dredging together with port improvement to guarantee the passage of 10,000-ton class ships through the Chongqing Port which is dozens of kilometres in length.

Migration Problem

Assuming the normal reservoir storage level to be 175 metres, 632 square km. of land will be inundated between the dam and Chongqing City—240,000 hectare of cultivated land,

11 county seats and two cities. More than 720,000 people will have to move. The inundated property and goods include 44 sites of cultural relics.

The feasibility investigation regards the index of inundated items reliable and qualified to be taken as the basis of the migrants' settlement programme, the investment estimation and the policy decisions. According to the 1986's policy and price calculation, the migration investment is 11.061 billion yuan. The migrants can be settled within their native counties or even their native townships. The whole programme may go along with the reservoir's regional development and construction in order to bring about a prosperous economy and environmental improvement.

Environment

According to the report, the Three Gorges project will have a far-reaching and profound impact on the environment. Among its advantages are: It will effectively lessen the threat and destructiveness of flood disasters on the densely-populated and economically developed plain areas on the middle reaches; help prevent snail fever on the middle and

lower reaches, improve the climate in some areas; reduce silt deposits in the Dongtinghu Lake and at the same time serve to regulate the volumes of water in the Changjiang.

Untoward effects on the environment occur mainly in the reservoir region. They include:

The irretrievable loss, by inundation, of some historical sites, of the natural beauty of the Three Gorges scenery and of some cultivated land.

Threat of extinction of race species, such as the dolphins (*Lipotes vexillifer*); tendency to landslides reservoir-induced earthquake; these effects may be diminished by the adoption of appropriate measures.

Relatively minor effects on climate in some areas, some hydrological factors, people's health and terrestrial animals and plants. Suitable measures may lessen the harm.

In addition, it is difficult at present to calculate the potential harm to marine life in the upper reaches, regional ecology as well as the ecological environment of the river mouth and the neighbouring sea.

Investment Calculation

In the feasibility report, the investment calculation in the Three Gorges project is based on 1986 market prices. The total static investment is 36.108 billion yuan with 18.767 billion yuan invested in the key project, 11.061 billion yuan for migration and 6.28 billion yuan in the transmission station or electric substation.

Because the Three Gorges project's hydrology, geological conditions and engineering designs have been researched for many years and checked many times, it is impossible that any important item has been left out. The report regards the basis of the preliminary investment calculation rela-

tively solid.

The report said, from the financial appraisal, we can see the investment efficiency of this project is good. From the 12th year after the construction begins, when the project begins to generate electricity, onto the eight succeeding construction years, the accumulative income from the sale of electricity will reach 39.22 billion yuan. At the same time, 2.5 billion yuan will be turned over to the state in various kinds of taxes and for construction funds of energy, resources and communications. The pay-off period of the investment will be 20.6 years, which means the project can pay off all its investment in the second year of its completion. From the 21st year, the annual income from selling electricity will grow to 7.5 billion yuan. After all loans are paid, the project will annually turn over 3.56 billion yuan to the state financial department, the profits and tax totalling 5.41 billion yuan, the rate of return on the investment up to 12.1 percent, a higher rate than the average 9 percent of the national electric power industry. Its annual total profit and tax exceeds the entire investment of the Gezhouba project.

The Capacity of the State

The report regards that, in terms of flood prevention, electric power generation and river transportation, the Sanxia Project is in harmony with the country's developmental needs, some of which are very urgent. Its scale does not exceed the capacity or resources of the state.

Judging from the future of national economy, the country is financially able to construct the Sanxia project. During construction, the rate of the project investment to the GNP and national income is respectively 0.73 per

thousand and 1.23 per thousand, which is lesser than the total investment for the Panzhihua Iron and Steel Base and the first-term project of the Baoshan Iron and Steel Complex. In accordance with the economic strength of the state in recent times, our country has adequate capacity to undertake such specially large basic project, with good economic results. Simultaneously this will have a great influence on the national economy. The plan will succeed if we only remain cautious, draw up an all-round programme, rationalize investment structure, and adopt effective methods to guarantee the key construction.

In terms of materials, the domestic production capacity is adequate. The quantity demanded for the Sanxia Project in bulk materials such as rolled steel, timber and cement, account only for 0.12-0.33 percent of the state total supply, a small proportion. Part of the Timber and rolled steel can be imported in order to reduce the pressure on domestic supplies as well as large construction machinery and equipment which cannot be produced here. The single machine capacity of the water turbogenerator unit is above 500,000 KW which also has not yet been produced in the country. The plan is to buy part of the equipment with foreign loans, simultaneously importing the technology to gradually change over to domestic production. The total foreign investment used in this plan will not exceed US\$1 billion, a sum which will not cause the country any difficulty. As for the actual work, the construction team of the Gezhouba Engineering Bureau, an experienced team trained in practical work at the Gezhouba construction site, is capable of undertaking the task at Three Gorges. □

THREE GORGES PROJECT (3)

Why I Am Against the Project

by Sun Yueqi, deputy director of the Economic Commission of the CPPCC

The Three Gorges project has been discussed for 33 years, but owing to objections from various sides, it has not been carried out. In 1986, the State Council again ordered the Ministry of Water Resources and Electric Power to re-examine the recommendations and evidence. At that time, I was Economic Construction Group leader of the CPPCC. It is a great honour to be invited, by the Ministry of Water Resources and Electric Power, as one of the special consultants of a leading group to make investigations. Now the meeting to re-consider the evidence on the Three Gorges project held by the ministry has ended. It would be unworthy of my post and responsibility if I did not speak up at this session.

In spring 1985, in order to learn the situation of the Three Gorges project, our economic construction group decided to set up an investigation group made up of 10 people headed by me and including members of the CPPCC and experts. The subject of the investigation was "A plan for comprehensive control over the Changjiang (Yangtze) River valley and problems connected with the Three Gorges project."

The group left Beijing for Chengdu on May 30. There they made a survey of Sichuan's Dujiang Dam and the upper reaches of the Minjiang River. From a boat they surveyed the site chosen for the Three Gorges dam at Sandouping. We went to Yichang, passing through the lock of the Gezhouba dam, and then traveled to Jingzhou and Shashi City in Hubei Province by car to

see the dangerous section of the Jingjiang River dam. Along the way we invited local people from the Party and government and from all walks of life to have discussions with us. Our survey took 38 days.

Back in Beijing, we wrote a report to the CPPCC National Committee, the Party Central Committee and the State Council, giving our opinions on comprehensive control of the Changjiang River and suggesting that the Three Gorges project should be postponed. We also advocated control of the tributaries first and of the trunk second, and that flood prevention be carried out on the plain.

I will now say something about flood prevention, electric power generation and navigation in relation to the Three Gorges project.

Flood Prevention

"On problems of preventing flood, it is necessary to avoid the illusion of waiting for the Three Gorges project to solve them and of thinking that everything will go off without a hitch in building the project," Premier Zhou Enlai remarked in the "Opinion on the Three Gorges key water control project and programme for the Changjiang River" adopted at the Chengdu Meeting of the Central Committee held in 1958. I think that this "opinion" conforms to the Changjiang River's characteristics. It is still highly practical today.

The Three Gorges project cannot prevent floods in the middle and lower reaches.

The project is limited by its geographical conditions. It can

control flood only in the upper reaches of the Chuanjiang River, but not in the middle and lower reaches. Moreover, if a reservoir in the gorges can have only a small capacity, it would suffer from losses by flood from the reservoir, and would be hampered by the necessity to move the population; in short, it is impossible to build the Three Gorges dam very high. The past tentative programme for setting the normal water level at 235 metres drawn up by the Planning Office of the Changjiang River was rejected because it would submerge half the Sichuan basin. Then the programme considered later decided on 150 metres, and the recently adopted programme (of first-grade development, building up once, storing water gradually and moving people successively, with a height of 185 metres and a normal water level of 175 metres) has a storage capacity of only 22.1 billion cubic metres. This is inadequate for flood prevention in the middle and lower reaches. If a flood like that of 1954 should occur again, we would have to deal with 70 billion cubic metres of flood water. If a flood like that of 1870 struck, the dam would need to hold 50 billion cubic metres. However, the Three Gorges reservoir could handle only a small

portion. Moreover, the reservoir would get smaller as it silted up for a certain number of years. It could only take over part of the flood volume stored at the Jingjiang flood-diversion areas and above the Chenglingji areas. As for areas near Wuhan, it

could neither lower the flood water level there, nor decrease the volume of stored water, to say nothing of the lower reaches in Jiangxi and Anhui provinces.

Flooding of the Three Gorges Reservoir would bring serious losses to the ecological environment.

Losses incurred by inundation of the Three Gorges reservoir would win a world record in the history of water resource construction. Under a normal stored water level of 175 metres, the over flow would submerge 430,000 *mu*, nearly 30,000 hectares of cultivated land, excluding land needed by moving of cities and towns and by factory construction as well as land silted up by mud and sand. Areas around the proposed Three Gorges reservoir are undeveloped, with many people and little arable land. The population has increased far beyond the capacity of the land to support it. If vast areas of fertile land are submerged again, it would be a great detriment to grain production. It would also be very difficult to build new cities near the reservoir on mountainous territory after the original fertile land in the reservoir areas has been flooded. To open up new land would increase water and soil erosion. So to resettle a large number of migrants would subject the environment to further damage.

At a normal water storage level of 175 metres, the number of migrants, according to a survey made in 1985, would be 725,500 people. In view of the natural increase in population from the year 1985 to 2008 (in reality, even later), and land occupied by migrants because of the moving of thickly populated cities and towns, the actual number of people who would need to move would reach 1.13 million. This is a big difference compared with the situation under the previous programme for a 150-metres wat-



At a discussion, experts freely express their views on the Three Gorges Project.

XU CHANGJUN

er storage level, which calls for moving 330,000 or 500,000 people. The amount of investment needed and the results on the ecological environment incurred in moving more than 1 million people from the two sides of the Three Gorges reservoir in the mountain areas should be considered carefully.

The Three Gorges reservoir would increase flooding in Sichuan.

Floods in the middle and lower reaches of the Changjiang River are disastrous, while floods in the upper reaches in Sichuan are also very serious. The planning office of the Changjiang River valley should consider flood prevention in the upper, as well as the middle and lower reaches. It is absolutely wrong to pay attention only to the middle reaches while disregarding the upper reaches.

The 1981 flood and that of 1870, the worst in history both occurred in the upper reaches of the Changjiang River, with disastrous results. However, the planning office of the Changjiang River valley has never paid attention to flood prevention in the upper reaches. After the huge 1981 flood in Sichuan, there was

no indication that the planning office was studying a programme for flood control in the upper reaches; the next programme for building a reservoir at the trunk and tributaries of the upper reaches still focused on flood prevention in the middle reaches, and made no mention of the upper reaches. A reservoir at the Three Gorges would cause water during a flood to back up further, making Sichuan's flood worse. The Chuanjiang River, 17 kilometres downstream from Chongqing, is blocked by the Tongluo Gorge. This will lead to raising Chongqing's water level. After a high dam is built at the Three Gorges, the effect will be exacerbated.

If the great dam is built at a height of 185 metres, in case an exceptionally large flood such as that of 1870 occurred again, we would make the best use of the reservoir to block flood in order to ensure the security of flood prevention at the Jingjiang Dam and to decrease flood in the middle reaches; in this case, the storage water level would be bound to exceed 180 metres. Moreover, a flood year means a great sand year. In the process of storing

flood water, a huge amount of mud and sand can silt up the end of the reservoir. This will seriously influence navigation and will raise the flood water level at Chongqing to 200 metres or more! It will also increase flood disasters, injuries, deprivation and death among the people in the Sichuan Basin! And a great amount of mud and sand carried by the Jialingjiang River will silt up its mouth, further raising its flood water level and increasing the harm.

I think that it is not suitable to carry out the project of the Three Gorges unless its key problems are cleared up and solved. When tributaries in the upper reaches, where floods often occur, where mud and sand are easily displaced are basically controlled, then it is relatively suitable to begin the project.

People in the reservoir areas cannot depend merely on the so-called fees allocated to them for migration; they need to make efforts to develop the economy of their own area.

The natural scenery and ancient historical and cultural sites around the Three Gorges rank among the ten major wonders in China. They are valuable tourist resources. A developed tourist industry can also bring in foreign exchange which can be used as capital for introducing technology.

Historically, one-sidedness on the question of harnessing the Changjiang River has consisted mainly of insufficient investigation and understanding, which lead to bad results. If a decision is hastily made on the project, it may not only bring disaster to later generations, but also might create obstacles to the second phase of our present economic development strategy. This is why I don't agree with the decision to build a dam 185 metres high.

Electric Power Generation

The Changjiang River valley is very rich in water resources. According to the planning office's statistics, the whole valley can yield nearly 200 million KW of hydroelectric power and 4,440 hydroelectric stations can be built on the tributaries totalling 106.59 million kw.

Development of water resources should be: tributaries first and trunk second.

The Changjiang River has many tributaries which themselves are big rivers, such as the Yalong, the Minjiang, the Dadu River, the Jialing, the Qijiang, the Wujiang and the Chishui rivers in the upper reaches; the Xiangjiang River, Hanjiang, Qingjiang and Ganjiang rivers in the middle reaches; the Huaihe, the Oujiang and the Minjiang rivers in the lower reaches. Many hydroelectric power stations can be built on these rivers. Many people have put forward various programmes for developing hydroelectric stations on these tributaries. All can generate more than 10 million KW of electricity. We should not build the Three Gorges reservoir first and develop the tributaries later.

To open the tributaries first would have advantages of small-scale, short-term construction, for supplying electricity in the near future, before the year 2000. Even if the construction of the Three Gorges dam is carried out soon, it cannot generate power until the beginning of the next century. So it cannot meet the present needs for electricity as distant water cannot quench present thirst.

To exploit the tributaries, opening up navigation should be combined with power generation. During the dry season, power stations on the tributaries should generate electricity, and allow water to flow to the trunk to deepen the shipping lanes. This

allows for routine navigation during dry seasons.

Opening up the tributaries brings every province into play. For example, Hunan Province can voluntarily help solve the problem of migrants in order to build a power station on the Yuanjiang River; Hubei Province can voluntarily collect 600 million yuan to support the Geheyan project on the Qingjiang River. Sichuan Province can collect funds to support the Ertan project on the Yalong River, and also to develop the Qujiang and Qijiang rivers for navigation and power generation.

Scale of investment must conform with the country's economic strength.

At present, the scale of our investment in capital construction is very big and needs to be more strictly controlled and cut down. If it is increased in the huge amounts required by the Three Gorges's project, which cannot go into operation for a long time, other projects for electrification would be squeezed out as well as other key and capital construction projects.

The Gezhouba Dam, to give just one example, squeezed out projects for the Qingjianggeheyan and other hydroelectric power stations. If we had built one hydroelectric power station after another on the four tributaries — the Qingjianggeheyan, the Yuanshuiwuqiangxi, the Lishuijiangya and Zishuifuxikou instead of the Gezhouba project carried out in 1970, they could have generated a total of 2.97 million KW. As compared with the 2.715 million KW of the Gezhouba Dam, this is 255,000 KW more. Moreover, they would have needed less funds than were invested in Gezhouba, and could have gone into use earlier. All four tributaries are important in flood prevention, navigation and irrigation. The Gezhouba Dam took 18 years, and began to ge-

nerate electricity 11 years after it was begun. The construction was slow, the quality of power is inferior and its efficiency is poor.

In exploiting the Changjiang River's electric power potential, is it preferable to open up the tributaries first and the trunk later in line with local conditions, or to build a huge Three Gorges Dam first? I suggest that a comparison of the two programmes be discussed carefully at this meeting.

Chief Engineer Hong Qingyu of the planning office of the Changjiang River valley said, "Investment per KW unit in the Three Gorges is low." "Some comrades adding on factors of interest and price hikes claim that it needs 60 billion or 100 billion yuan, but they don't add them to other power stations. In that way, you can't really compare." Our investigation group really did mention 60 billion yuan, but the investment investigation department of the Construction Bank specially in charge of capital construction made a higher estimate than ours.

In 1985, the working group of the Three Gorges of the United States estimated that the project needed US\$ 8.5 billion excluding expenditures on migrants, while Canada estimated that it needed US\$ 10.6 billion, without indicating whether it includes expenses for migrants or not. In short, they all made higher estimates than our planning office.

Navigation

I think that the planning and harnessing of the Chuanjiang River should focus on navigation, and not "flood prevention first." This is because the Changjiang River is China's biggest and the most important channel for navigation, and is a big artery linking the southwestern, central and eastern China's economies. It is also a key export mouth to foreign transportations

in the southwestern areas. If there appear problems, the overall economic development would not only be influenced but leave a legacy of trouble to future generations as well. The Chuanjiang River's navigation cannot be replaced by any other ways.

"Navigation first" was put forward by Premier Zhou Enlai in the two meetings held respectively in June 1971 and November 1972. His words conform to both the objective and natural conditions in the Chuanjiang River and the comprehensive development of technological and economic efficiency in the Changjiang River valley.

The height and runoff volume of the Changjiang River rank third in the world, and for years, the average sand transmission volume ranked fourth. However, owing to over-felling of trees in the upper reaches, water and soil erosion and the increase of mud and sand, the average annual sand transmission volume in the past six years has reached 680 million tons; it might probably now rank third in the world.

It is hard to solve the sludge problem.

The Changjiang River is a multiple sands river. To build a high dam on the Chuanjiang River is bound to bring about a great amount of mud and sand which naturally enter the reservoir areas of the Three Gorges. This would seriously influence navigation, and lower its efficiency in power generation.

In the 175 metres programme, although backwater can reach directly above Chongqing, the sludge in the backwater from the reservoir inlet may change areas and approach Chongqing harbour and the mouth of the Jialing River, blocking the navigation course. Moreover, sludge deposit on the river bed will also raise the flood water level, so that flood disasters in the upper reaches will be a more

dangerous threat to Sichuan Province.

A report made in June 1986 by the experts group of the Three Gorges Project of the World Bank stated, "The problem of mud and sand is one of the most important problems in the Three Gorges project. Although much research work has been done, more effort should be made to further study and ascertain the exact volume of sludge in the reservoir and to predict the depth of waterway after silting up in the moving backwater area. The influence of silt deposits in moving backwater areas on waterways is the most serious problem in the Three Gorges project, and it is necessary to make a careful investigation. The prediction and conclusion based on it should be assessed in an overall way."

To develop navigation first needs to harness waterways.

In the past 30 or so years after liberation, the Chuanjiang River course was brought under control. About 100 million yuan was invested in some 650 kilometres of waterways. The depth of the shallowest waterway was increased from 2.1 metres to 2.9 metres, and the present annual freight volume is about 5 million tons. It is estimated that the freight volume can reach 15 million tons in the year 2000, about 30 million tons in 2015, and 50 million tons in 2030. In order to meet the needs of development in the southwestern areas, continuous efforts should be made to harness the waterways of the Chuanjiang River on a large scale by deepening the channels, reducing dangerous shoals and controlling river sections. At the same time, port construction and transformation should be carried out and on trunk lines the freight volume of ships should be increased, navigation technology improved, more ships added and management made more effi-

cient. Through survey and calculation and after adopting the above measures, the capacity of waterways in the Chuanjiang River can reach about 30 million tons.

It is believed that the first stage of harnessing will need a 500 million yuan investment, and the capacity of navigation can reach 10 to 15 million tons. In the second stage, large-scale harnessing will need more than 1 billion yuan, and the capacity will reach about 30 million tons. This accords with China's national conditions and financial means. Realistic measures to meet the needs of navigation development in the Chuanjiang River within 20 years should be adopted without delay.

Harnessing the tributary and the trunk waterways should be coordinated.

As volume of freight along trunks of the Changjiang River increases, a great through-transport network should be formed by using the tributaries leading in all directions (in addition to the land-water coordinated transport in port cities). There are many navigation services along the Changjiang River tributaries, but most of them are not up to standard, have a small turnover and low freight volume, and therefore, need to be greatly improved.

Construction of 33 tributaries is planned by the Ministry of Communications before the year 2000, and for 15 of them the ground-work has already begun. Some of the construction has been started as part of the Seventh Five-Year Plan (1986-90). For example, the waterway between Yibin and Chongqing has been opened to navigation for barges with a capacity of 1,000 tons so as to link the channel between Chongqing and Yichang. Control of the waterways of the Minjiang and Chishui rivers and channeling the Qujiang at

different levels must be accomplished before the Three Gorges project. This is also a component part of the comprehensive control of the Changjiang River valley. I think that the Ministry of Communications' realistic, practical method of proceeding is very correct.

At the tenth enlarged meeting of the leading group investigating the Three Gorges project held from February 27 to March 7, a feasibility report on the project was adopted by the majority, and the programme for a normal storage water level of 175 metres was decided on. They still think that "it is advantageous to build earlier than later," and to "start construction at the earliest date." In my speech at this meeting, I said that I had a different opinion about this programme. I am against the decision to build the Three Gorges project early and fast.

At this meeting, several veter-

an experts in water resources and electric power advocated a programme for a 160- or 150-metre storage-water level, or advocated carrying out two-stage development. In addition to one grade in the Three Gorges, they suggested that another grade be started near Fuling. This would reduce the number of migrants and the accumulation of silt in the areas near the Chongqing port. I and more than ten other members of the CPPCC who attended the meeting all stood for the programme of tributaries first, trunk second, and flood prevention in the plains. Experts in navigation maintain that waterways should be dredged, while experts in ecological environment hold that the Three Gorges project will have a far-reaching influence on the ecological environment and these aspects merit due attention. Although there are many different opinions, none of them have been adopted. □

~~~~~

## **China Still Welcomes Tourists**

**T**he counter-revolutionary rebellion in Beijing, China's capital, has been put down. Communications and the social order of life in the city of Beijing and other tourist cities such as Xian, Shanghai, Guangzhou, Guilin, Hangzhou and Nanjing has returned to normal.

On June 13, the Palace Museum (Forbidden City) was reopened. Both international and domestic flights, railway transportation, postal and telecommunications are back in action. All large hotels, restaurants and shops are running as usual.

Martial law enforced in some areas of Beijing should not affect visitors in their tours and evening recreational activities, and their safety is guaranteed.

The National Tourism Administration (NTA) solemnly proclaims that the safety of overseas tourists who come to visit China has never been affected and can be guaranteed. Tourists may execute their visits and tours as planned. They are welcome to visit China and do not need to change their travel itineraries.

The NTA gives its hearty thanks to overseas travel agencies including those in Hong Kong, Macao and Taiwan which have been organizing tourist trips to China and welcomes them to come and check out the tours conducted in China. □



## Remains of Peking Man Suggest Chinese Origins

**O**ne fine, crisp morning I went to Zhoukoudian, 50 kilometres southwest of central Beijing, to visit the home of the world-famous Peking Man, cave dwellers whose existence has been dated back about 500 millennia.

Discovered in 1929, Peking Man, or *Sinanthropus pekinensis*, is believed to be the ancestor of the modern Chinese. The caves where their fossils were found are located in Longgushan or Dragon Bone Hill, about 70 metres high.

As I made my way up the steps leading to the caves, birds could be heard in the thicket of trees, deepening the sense of tranquility. I felt I was not climbing a hill so much as stepping backward towards the origin of human society.

After a while I reached the narrow crevice halfway up the hill and I sensed this must be one of the caves. And indeed it was.

The cave ape-men used as a shelter against the elements 500,000 years ago is about 20 metres high and half the size of a basketball court. The cave roof had already collapsed, allowing sunlight to streak in.

This otherwise unimposing cave suddenly rose to fame in December 1929 when Professor Pei Wenzhong unearthed the first well-preserved skull-cap of Peking Man.

The importance of this find lies in that it allowed scientists to study its relationship with other known human fossils and establish his lineage.

Excavations later yielded more skull-caps and fossils belonging to about 40 individuals of varying ages, a large quantity of animal bones, thousands of stone implements and other relics.

All these were dug from a deposit more than 40 metres deep. The deposit consists of 13 layers. Each yielded its own distinctive

contents and the overall findings provide a history of Peking Man.

Unfortunately, the human fossils recovered before the Anti-Japanese War disappeared while they were being transferred to places of safety and their whereabouts are still unknown.

Today, small tags are placed in the cave to indicate where a particular relic was found. The cave is now a centre for the study of human evolution and attracts many anthropologists from abroad.

With mixed feelings of nostalgia and curiosity, I examined the relics intently and tried to picture in my mind a group of low-browed, high-cheekboned, and big-mouthed ape-men sharpening stone tools and roasting animals over fire here in the cave while their women made clothes of leaves or fed their children.

These cave dwellers had learned to use fire for warmth, protection and cooking. But the thick deposit of ashes suggests they had not yet learned to generate fire themselves and still had to preserve fire they found in nature.

Analysis of animal remains in the cave revealed bison, deer, tiger, bear, wolf, wild horse, cheetah, woolly rhino, beaver, otter, giant camel and ostrich.

Such an abundance of animals suggests that the Beijing area used to contain forests, marshes and grassland, and that the climate was much warmer and humid than what is now.

From this cave, I followed a winding path further uphill to another cave. This one, smaller than that occupied by ape-men, housed the much more advanced homo sapiens who lived about 18,000 years ago and were capable of making fire, drilling, grinding and sewing.

The finding of bone needles suggests that people at this time knew how to sew pieces of animal skin into garments.

In addition to hunting and gathering food in the wilds, the Upper Cave Man had learned to catch fish and shell fish, thus broadening his diet.

Also noteworthy is that these cave dwellers were beauty-conscious compared with the apemen below and adorned themselves with beads, rings and other odd-shaped ornaments made of bones and stones.

The latest discovery of a cave home of primitive humans was made in 1973, also in this small hill. Studies of teeth unearthed here indicated that the dwellers here occupied a stage between Peking Man and the Upper Cave Man. The ash deposits in the cave contained elephant bones and bones of small insect eaters.

The fossils of cave dwellers in Beijing are clues to the origin of Chinese race. Wu Xinzhi, a Chinese anthropologist, said, "Upper Cave Man represents primitive Mongoloid type and is closely related to the ancestors of modern Chinese, Eskimo and American Indian though some typical Mongolian characters were not yet well developed at that time."

Jia Lanpo, author of "Early Man in China," only partly agreed with Wu. This is because, he said, radiocarbon testing dated Upper Cave Man as 18,000 years old and Jia believes the development of Mongolian characteristics had begun long before then.

The fossils in the cave also revealed the enormous environmental changes of the past 500,000 years, making us all the more aware of possible ecological disasters looming ahead of mankind.

On the way back, I thought: A man's life span is just a flash of light in the galaxy of human history. Yet his life is made possible by more than 500,000 years of human evolution. Mankind is not created by God but by itself.

**by Cai Xianfeng**



## East-West Exchanges in Ceramics

An exhibition of ceramics jointly sponsored by China's Palace Museum and Japan's Idemitsu Gallery was held in the Forbidden City in Beijing last May.

Named "The Ceramic Road" the exhibition comprised about 170 pieces of celadon, white porcelain and painted pottery which were collected by the Idemitsu Gallery and were fired in China, Japan, Iran, the Netherlands, Spain, Britain, Germany, Italy and other countries.

The exhibition was centred on China's ancient pottery. European ceramics and ceramic objects from the Middle East and Near East of the 17th centuries were comparatively displayed with their models—Chinese and Japanese wares revealing the history of the interaction of ceramics between East and West.

Shosuke Idemitsu, curator of

the Japanese gallery, said, "The craftsmanship of these pottery and porcelain ware reflects the course of the exchanges between East and West."

But according to the curator of the Palace Museum, Zhang

The plate on the left was baked at Jingdezhen in the 17th century. With a design featuring blue flowers and an immortal, it is 28.6 cm in diameter. On the right is a similarly named plate made in Italy in the 18th century, 28.2 cm in diameter.



Three flasks from the 18th century designed with blue flowers and the eight Buddhist emblems of good omen. That in the middle is 50 cm high and was baked in Jingdezhen in China's Jiangxi Province. That on the left is 53.7 cm high and the one on the right 48 cm. They were respectively baked in Delft in the Netherlands and in France.



produce white porcelain in the sixth century and the magnificent tri-coloured glazed pottery of the Tang Dynasty came in the eighth century. As these ceramics entered into the daily life of the Chinese, their production increased continuously so that some was exported.

Cultural relics unearthed in Asian and African areas show that the earliest Chinese ceramics there were made in the Tang Dynasty (618-907). On the one hand, China's ancient ceramics made a notable impact abroad; on the other hand, they were influenced from the outside. For instance, among the exhibited articles, there is an ewer of tri-coloured glazed pottery of the Tang Dynasty designed in the shape of a phoenix head, which is very similar to the Iranian designed one.

In the Song Dynasty (960-1279), along with the rapid increase in production, ceramic exports developed greatly. Korean celadon and some of the Japanese products clearly reflected the Song influ-

ence.

In the 14th century during the Yuan Dynasty (1271-1368), Jingdezhen in present-day Jiangxi Province created the novel and graceful blue and white porcelain, which was treasured by the whole world. Among ceramics produced in Egypt, Syria and Turkey in the 15th and 16th centuries, there were articles vividly modelled on the Chinese blue and white porcelain.

In the 16th century, Portuguese and Spanish merchants began to ship Chinese ceramics to Europe for sale. Within 80 years, the Dutch East India Co. sold more than 10 million Chinese ceramic pieces. They became indispensable ornaments in the families of European nobles.

One could see from the exhibition that much porcelain designed with blue flowers on a white background, baked by the Delft kiln of the Netherlands in the 17th century, was obviously modelled on China's Jingdezhen porcelain. Even their design patterns were the same.

From the 18th century, Britain,

France, Germany and Italy produced in succession ceramics modelled on Chinese and Japanese designs, but with their own characteristics.

A flask designed with a blue flowery pattern indicating good luck and baked in Jingdezhen in the 18th century found its replica among the Delft articles. A ceramic object made in France in the 18th century was also found to have the same designs, except that its background was baked into yellow.

A Japanese octagonal plate fired in the 18th century based its design pattern on an old Chinese story telling how young Sima Guang broke a water vat in order to save his friend who had fallen into it. The plate was conspicuously imitated by Germany and Britain in the 18th century.

According to many experts, the exhibition displayed the history of a rich cultural exchange between East and West as well as offering valuable material for the comparative study of the developing story of ceramics.

by Wei Liming

## Archaeological Progress in Sichuan

**A**fter three years of study and excavation, archaeologists have finally verified that the Sanxingdui historical site in Guanghan City, in southwest China's Sichuan Province, was the capital of the ancient State of Shu some 3,000 years ago. The discoveries at Sanxingdui three years ago had intrigued archaeologists at home and abroad very much.

In last April's excavation, archaeologists found the ancient city wall, bank revetment and the ditches of the city moat. On top of the main city wall, there were traces of adobe laid by human hands. The base of the wall was 40 to 50 metres wide and it had a total length of around 2,600 metres. The wall was found by the east and west sides of the central district of the historical site and in the curve formed by the

Mamu River in the south. Together with the Yazi River in the north and the Mamu, the wall formed a protective screen of either mud bricks or water.

Archaeologist Chen Dean confirmed that the screen formed by the wall and waterways showed the strategic importance of Sanxingdui. The city without doubt was the capital of the state.

In summer 1986, archaeologists discovered by Sanxingdui two sacrificial pits of the Shang Dynasty (1600-1100 BC), where some 800 rare cultural relics were unearthed, including a large amount of jade and stone ware, a bronze standing human statue, bronze human heads, face masks, a bronze tree with rare animals and pheasants, as well as branches, leaves and fruit on it, a gold stick and pure gold face guards.

Carved with water birds and designs of human faces, the gold stick from the No. 1 pit is believed to be a symbol of royal power. Legend says that the ancient king of Shu, Yu Fu, used a water bird as his surname. *Fu* literally means wild duck in Chinese.

Among more than 60 bronze human statues unearthed from the No. 2 pit, there is only one life-size, standing human statue. This slim, 1.72-metre-tall statue wears a high corona and two bracelets on its feet, with the two hands placed in front of the chest. The whole statue presents a leisurely air and possesses natural grace. The other statues are dressed differently and all the facial expressions show pain. The bronze tree is 1.4 metres high.

Legend says that, after he died, Du Yu, a descendant of Yu Fu, turned into a cuckoo which called sorrowfully every early spring. Experts think that the No. 2 pit is the one which the ancient Shu people used to offer sacrifices at King Du Yu's funeral.

Historical records say that during the reign of King Du Yu, a serious flood occurred. Archaeological discoveries in recent years have verified that the flood led to the disappearance of ancient Sanxingdui.

In fact, since local farmers accidentally discovered a pit of jade stone when they dug a channel 60 years ago, Sanxingdui has been haunted by archaeologists. In the early 60s, archaeologist Feng Hanji observed that somewhere around Sanxingdui was probably one of the central cities of the ancient State of Shu. By the early 80s, large amounts of jade, pottery and bone ware, dozens of house foundations of the Shang Dynasty, pottery kilns and ash pits were discovered there. These made experts aware that the Sanxingdui site had not only a cultural history of more than 2,000 years. The rich variety of the relics and their abundance led to the belief that Sanxingdui might not be an ordinary historical site. Later, members of the Sichuan Archaeological Institute made the inference that Sanxingdui might be the capital of the ancient State of Shu. The excavations in the last three years have proved that they are right. □



Song Dynasty Porcelain—a Still Life.

## ART PAGE

### Woodcuts by Yi Zhensheng

Yi Zhensheng was born in Xinghua, Jiangsu Province. He now works at the Wuhu Municipal Studio of Art and Calligraphy in Anhui Province.



Herding in Autumn.

Ferry.







Plum-brand glassware has enjoyed a 36-year history of export to more than 80 countries and regions. With improved technology, new variety, better style and packaging, our company's products receive favourable comments from consumers wherever they are sold.

Now the assortment of Plum-brand glassware include the following products:

1. Machine-moulded products: These include various kinds of cups, beer glasses, teacups, drinking glasses, milk glasses, ash trays, sugar bowls, glass bowls and coffee cups.

2. Machine-blown cups: These include plain-glass cups, printed-glass cups and carved cups in various styles, volumes and models.

3. Broad assortments of individually blown products: These include plain-glass cups, carved cups, scenic patterns, colourless wine glasses, colourless cut glass vases, jacketed vases, colourless beer sets, seven-piece drinking sets of cups and vessels.

With varied models, new styles, bright colour and high transparency, the various kinds of glassware are ideal for big or small banquets, restaurants, bars and family use. In addition to the above-mentioned goods customers can also choose from and order the products made by the Tianjin Light Industrial Products Import & Export Corp. that offers sales services and can also process goods according to buyers' samples (including designs).

Plum-Brand

**GLASSWARE**



**TIANJIN LIGHT INDUSTRIAL PRODUCTS IMPORT & EXPORT CORP.**

Address: 164 Liaoning Road, Tianjin, China

Cable: "INDUSTRY" Tianjin

Telex: 23142 TJLP CN