

ANNEX I

TO THE PROTOCOL BETWEEN THE GOVERNMENT OF THE  
UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE  
PEOPLE'S REPUBLIC OF CHINA ON COOPERATION IN  
HYDROELECTRIC POWER AND RELATED WATER RESOURCE  
MANAGEMENT

The American Hydropower Delegation led by Mr. S. David Freeman, Chairman of the Tennessee Valley Authority, which visited the People's Republic of China (PRC) from March 1-17, 1980, held discussions with the Chinese Hydropower Delegation on possible areas of cooperation during 1980-1981 in line with the Protocol. In addition, the Parties also exchanged views on projects to be built.

The Parties reached specific agreement as follows:

1. Cooperative activities on hydroelectric power and related water resource management of the Hongshui River in China:

1.1 The American side will send a delegation of ten specialists to China for one month in August 1980 to study the Hongshui River and to discuss the multi-purpose development program, and Datengxia and Longtan hydroelectric power projects which will be built in the near future.

1.2 The Chinese side will dispatch a mission of ten specialists to the United States in September-October 1980 to study for one month the multi-purpose development planning of the Columbia River, estuary regulation and large scale hydroelectric power projects in the Columbia valley and the adjoining area.

1.3 Based on these mutual visits, the Parties will further discuss the alternatives of multi-purpose development planning of the Hongshui River and will decide on cooperative activities concerning multi-purpose development technology for the Datengxia and Longtan hydroelectric power projects.

2. Cooperative activities on the Longtan hydroelectric power project in China:

2.1 As requested by the PRC Ministry of Electric Power, the U. S. Army Corps of Engineers will send ten to fifteen specialists to China for variable periods, depending on need, over a six month period beginning in July 1980 for the purpose of studying the economic feasibility of, and reviewing the engineering design and construction planning for the Longtan project.

2.1.1 If the above study by the U. S. specialists discloses the need for further work and the Ministry of Electric Power desires further assistance, the details of such assistance will be negotiated separately between the Ministry of Electric Power and the Corps of Engineers.

2.1.2 During the construction phase of the Longtan project, the Corps of Engineers will provide on-site assistance in construction engineering and management if desired by the Ministry of Electric Power. The details of such construction assistance will be negotiated separately between the Ministry of Electric Power and the Corps of Engineers six months prior to the beginning of construction.

2.2 As requested by the Corps of Engineers, the Ministry of Electric Power will send six to ten specialists to the United States for a period of six to twelve months to be assigned to various U. S. locations for the purpose of participating in specific engineering planning, design and construction work. This exchange will begin after October 1, 1980.

3. Cooperative activities on multi-purpose development technology of the Three-Gorge project in China:

3.1 The American side will dispatch a delegation of ten specialists to China in September 1980 for one and a half months to study the dam sites of the Three-Gorge project and to discuss the planning and design alternatives of the Three-Gorge project and designs of high dams, large scale power houses, gates, steel pipe, opening and closing mechanisms, large high head navigation structures, large size diversion works and extra high voltage AC and DC transmission technology as well as the selection of large size water turbine generating sets.

3.2 The Chinese side will send a delegation of ten specialists to the United States in May 1980 for one month to study the multi-purpose utilization of the Tennessee and Colorado Rivers and operational control of river systems and hydroelectric power stations in cascades and to make a study tour of the Engineering and Research Center of the Water and Power Resources Service of the U. S. Department of Interior and the Waterways Experiment Station of the U. S. Army Corps of Engineers as well as inter-valley diversion in the western arid areas of the United States.

3.3 Based on these mutual visits, the Parties will discuss and define scientific and technical cooperation in the field of multi-purpose utilization of water resources and the Three-Gorge project and will explore the design alternatives of the Three-Gorge project.

4. As requested by the PRC Ministry of Electric Power, the Bonneville Power Administration of the U. S. Department of Energy will receive a team of seven Chinese specialists in the United States for one month in November-December 1980 to study power grid technology and related modern test and experiment methods. The Ministry of Electric Power and the Bonneville Power Administration will discuss further and decide on additional scientific and technical areas for cooperation in the development of transmission alternatives.

5. Cooperative activities on the Ertan hydroelectric power project in China:

5.1 As requested by the PRC Ministry of Electric Power, the U.S. Water and Power Resources Service will send a team of five specialists to China for three months from August to October 1980 to study jointly with Chinese specialists the design alternatives for the Ertan hydroelectric power project, including navigation feasibility, and to make a study tour to the dam site.

5.1.1 If the above joint study discloses the need for further work and the Ministry of Electric Power desires further assistance, the details of such assistance will be negotiated separately between the Ministry of Electric Power and the Water and Power Resources Service.

5.1.2 During the construction phase of the Ertan project, the Water and Power Resources Service will provide on-site assistance in construction engineering and management if desired by the Ministry of Electric Power. The details of such construction assistance will be negotiated separately between the Ministry of Electric Power and the Water and Power Resources Service six months prior to the beginning of construction.

5.2 As requested by the Water and Power Resources Service, the Ministry of Electric Power will send five specialists to the United States for one month to visit the Engineering and Research Center of the Water and Power Resources Service and other facilities of relevance to this project.

5.3 The Ministry of Electric Power and the Water and Power Resources Service will hold further discussions after these visits and may decide on further cooperation on the comprehensive development of the Ertan project and related scientific and technical research.

6. Scientific cooperation on the regulation of the Changjiang River Estuary in China:

6.1 As requested by the PRC Ministry of Communications, the U. S. Army Corps of Engineers will send a team of six to eight specialists to China for one month after July 1980 to make a study (including surveys, research, design and construction) of the estuary of the Changjiang River and to review the regulation problem (including sedimentation) with Chinese specialists experienced in the functioning of the Changjiang River and its estuary.

6.2 As requested by the Corps of Engineers, the Ministry of Communications will send a team of six to eight specialists to the United States in October 1980 for one month to visit and study the Mississippi and other similar estuaries in the United States and also the experimental centers involved in estuary research.

6.3 If the above study discloses the need for further work and the Ministry of Communications desires further assistance, the details of such assistance will be negotiated separately between the Ministry of Communications and the Corps of Engineers.

7. The number of specialists and the dates and duration of visits under this Annex are understood to be approximations, subject to case by case resolution, according to the needs of the project and the availability of funds and personnel. Details regarding specific personnel, expenses and living conditions will also be resolved on a case by case basis.

8. In order to make the above exchange visits as productive as possible, each side agrees to supply the other with pertinent technical information regarding the subject of the visits at least one month prior thereto.

9. The Chinese side will dispatch to the United States in 1980-1981 fifty specialists in hydroelectric power, transmission and transformation, water conservancy, navigation and other related fields to gain practical experience in corresponding U.S. governmental departments and research institutions. The stay in the United States for most Chinese specialists will be six to twelve months.

10. The U. S. side noted that the Chinese side has had experience in hydroelectric power and water resource management which is of interest to the United States. The Parties agree to exchange information regarding these areas and to visits by U.S. specialists to study the Chinese experience.

11. The Parties recognize that there may be a need for subsequent consultations on additional activities as well as on modifications of those activities specified in this Annex. Where such related activities are identified, it is understood that new items under this Annex will be added by mutual consent.

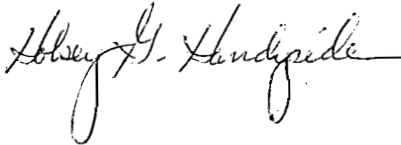
12. The cooperative activities carried out under this Annex will be subject to the funds and manpower available to the Parties. The specific missions, obligations and conditions with respect to the above-mentioned activities, including the responsibility for the payment of costs, shall be decided upon by mutual agreement on a case by case basis. For the purpose of implementing the cooperative activities of this Annex, the sources of the funds shall be sought in accordance with the relevant laws and regulations of the Parties.

Done at Beijing this 15th day of March, 1980, in duplicate in the English and Chinese languages, both equally authentic.

CHAIRMAN OF THE  
AMERICAN HYDROPOWER DELEGATION



THE AMERICAN NATIONAL COORDINATOR



CHAIRMAN OF THE  
CHINESE HYDROPOWER DELEGATION



THE CHINESE NATIONAL COORDINATOR

