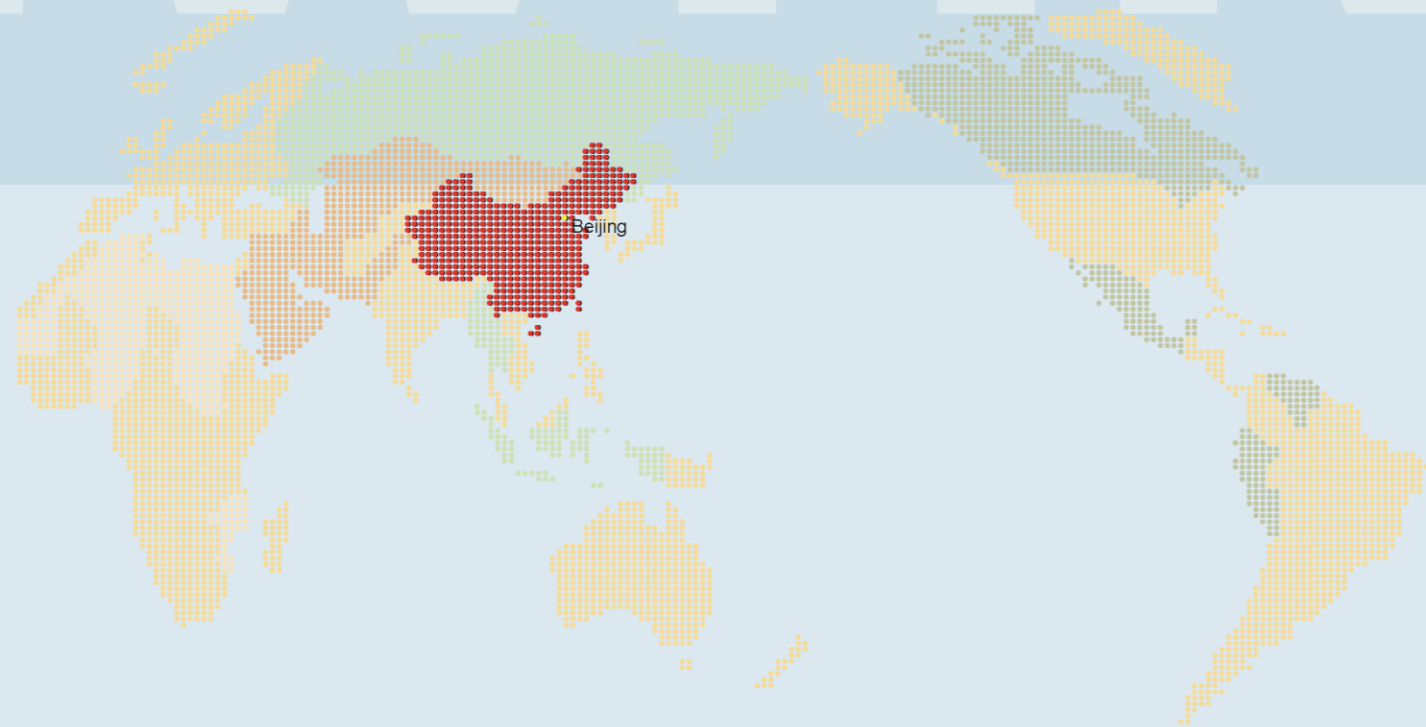


IWHR

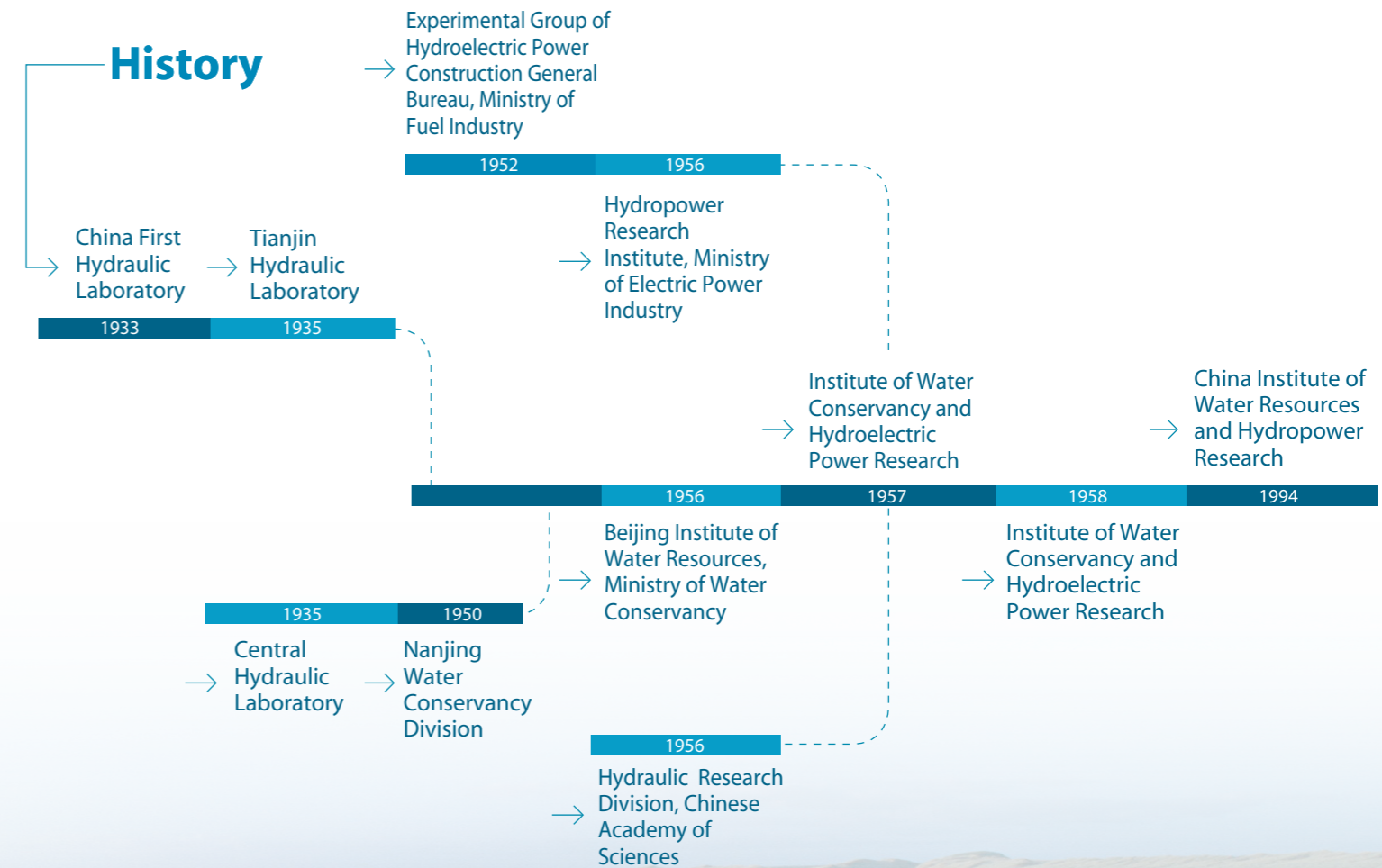


院

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04	Research Departments	04
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07	International Exchange	15
08	Typical Projects	16

- Land Area: 3.83 km²
- Laboratories: 32 labs covering 60,000 m²
- Employees: 1,374 by the end of 2007



INNOVATION

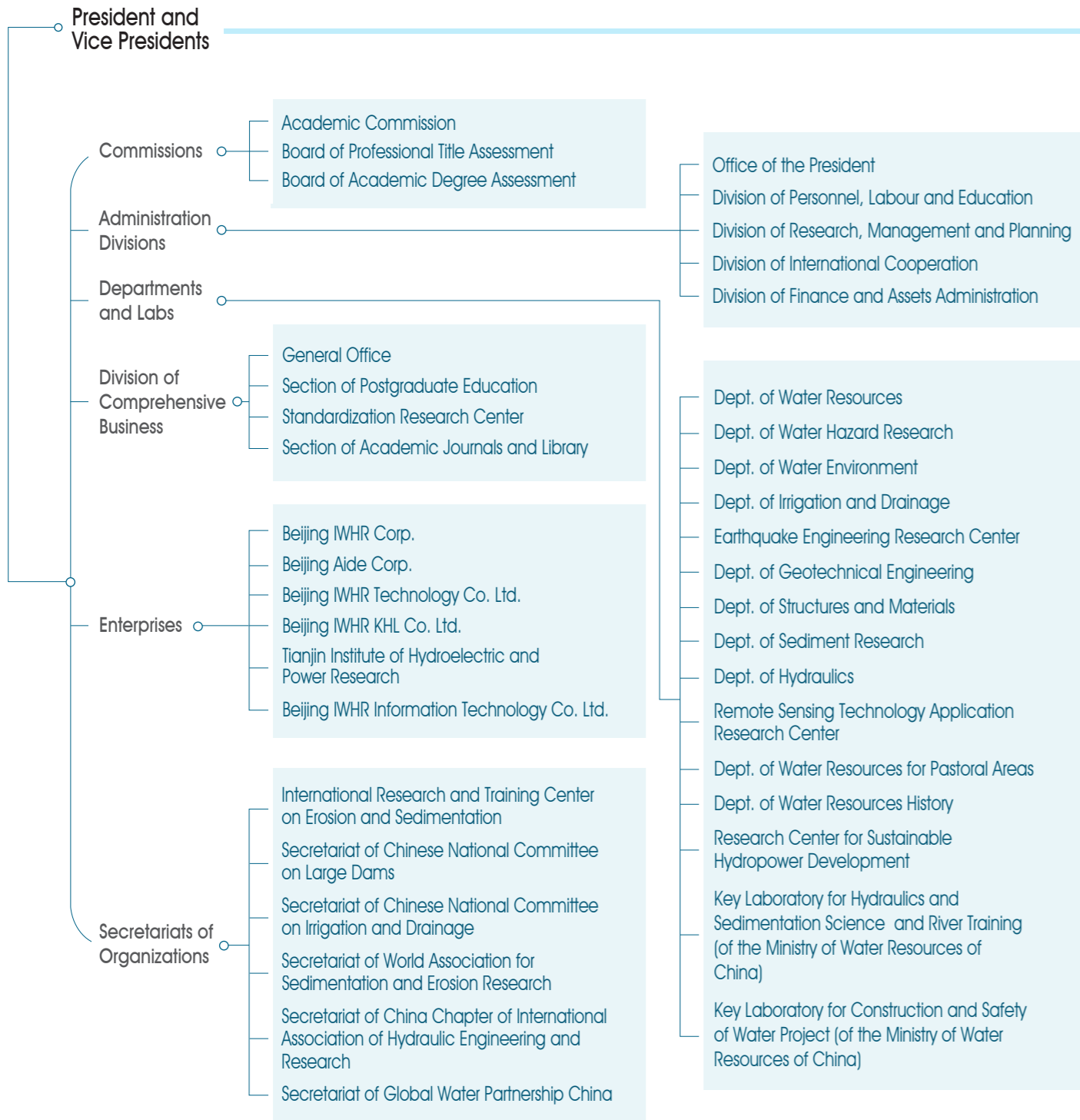
PRACTICALITY

DEVOTION

DEDICATION

02 Organization

03 Platforms



Scientific Research Bases



Daxing Laboratory Base (Beijing)



Yanqing Laboratory Base (Beijing)



Technology Innovation Bases (Beijing)



Base of Water Resources for Pastoral Areas (Inner Mongolia)

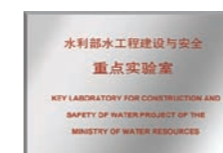
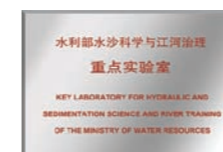


Tianjin Institute of Hydroelectric and Power Research (Tianjin)

Research Centers

Since 1984, a series of research centers at national and ministerial level have been established:

- National Center of Efficient Irrigation Engineering and Technology Research-Beijing
- National Center of Agricultural Irrigation and Drainage Instrument Monitoring and Test
- National Research Center for Sustainable Hydropower Development
- Water and Soil Conservation and Ecological Engineering and Technology Research Center (of the Ministry of Water Resources of China)
- Water Resources and Water Ecology Engineering and Technology Research Center (of the Ministry of Water Resources of China)
- Grassland Water and Soil Conservation and Ecology Research Center (of the Ministry of Water Resources of China)
- Water Environment Monitoring and Assessment Research Center (of the Ministry of Water Resources of China)
- Remote Sensing Application Technology Center (of the Ministry of Water Resources of China)
- River Water Conservancy Annals Collection Office (of the Ministry of Water Resources of China)



L

Large Equipment



The world's largest vacuum tank (vacuum percentage: 98.7%; flow discharge: 1.0 m³/s; maximum working head: 14 m)



Advanced hydraulic machinery model universal test stand



Lxj-4 450g-t geotechnical centrifuge



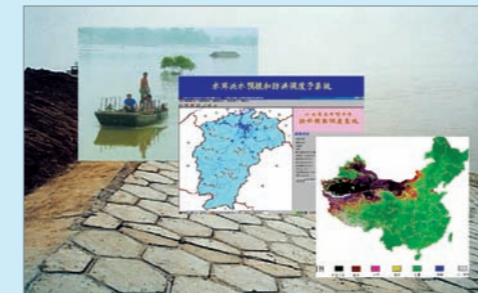
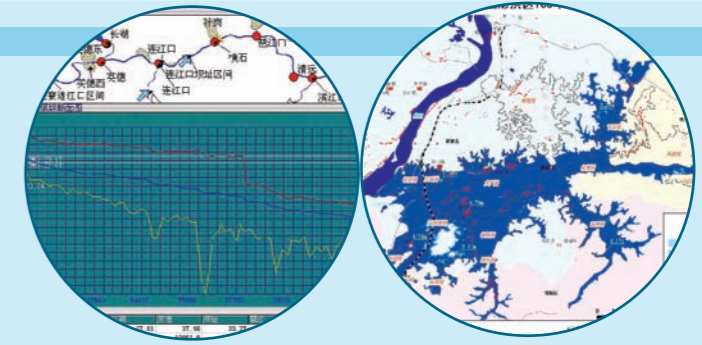
Dynamic experiment of Nanjing World Trade and Exhibition Center on Shaking Table



1500-ton large-scale dynamic material testing system

D

Department of Water Hazard Research



Flood forecasting and dispatching system



River bank protection research

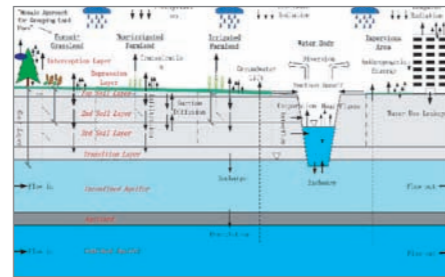


Three-dimensional sand table of nationwide river basins

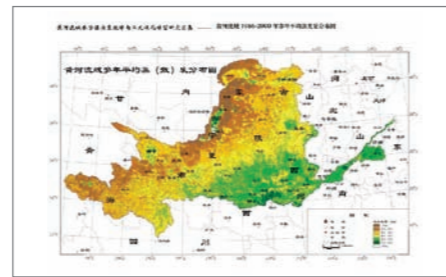
04 Research Departments

D

Department of Water Resources



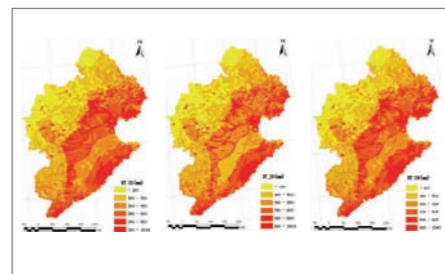
WEP model structure



Evapotranspiration distribution in the Yellow River basin from 1956 to 2000



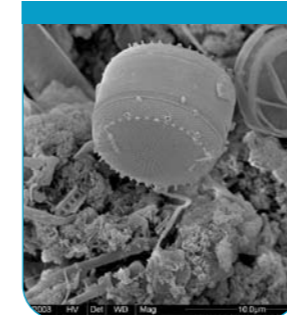
Water resources dispatching and information



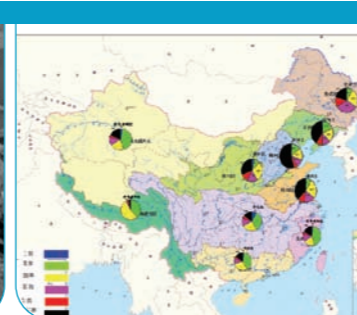
ET control targets allocation in the Haihe River Basin

D

Department of Water Environment



Scanning electronic microscopy picture of the biological film on the surface of filter materials



Statistics of water quality nationwide



Study on the water-transfer plan aimed at improving the water environment in Taihu Lake region



GC/MS for determining organic pollutants in water

Department of Irrigation and Drainage



Production line for localized in-line flat emitter

Experiment equipment for in-field drip irrigation

Precision surface irrigation technology

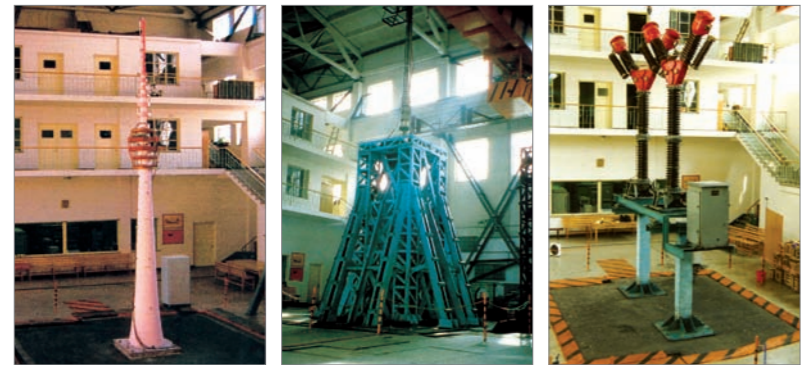
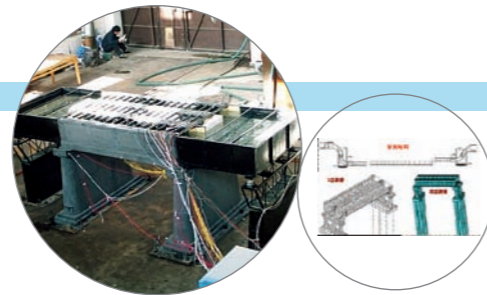
Sprinkler irrigation

Drip irrigation

Irrigation laboratory base

Earthquake Engineering Research Center

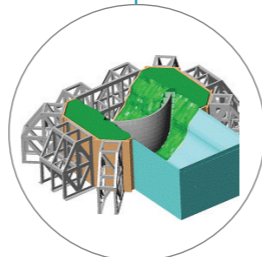
Anti-seismic experiment and computational analysis on large inverted channel of the South-to-North Water Transfer Project



Dynamic experiment of CCTV tower model

Anti-seismic experiment of the driving mechanism of nuclear control rod

Seismic test for power facilities



Dynamic experiment of Xiluodu arch dam model

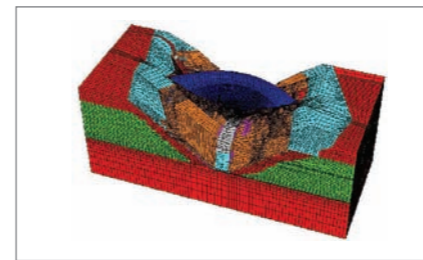
Department of Geotechnical Engineering



AMS magnet structure experiment in 1997



Silt blasting for consolidation in Majishan ore reshipment port



3D non-linear FM analysis on the couple effects of the Xiaowan high arch dam and rock foundation

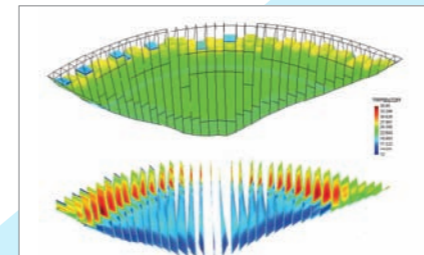


Consultancy on dam deformation control, treatment of abutment slope and water-stop design for the Hongjiadu CFRD

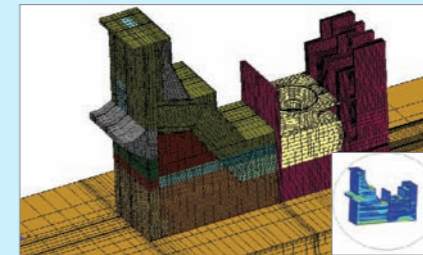


Consultancy on dam deformation control, slope and foundation treatment, and safety monitoring for the Xiaolangdi project

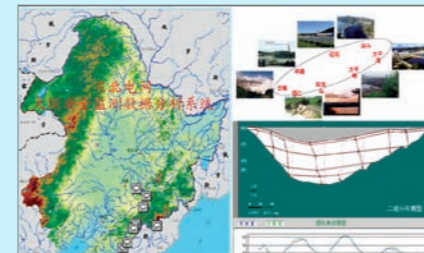
Department of Structures and Materials



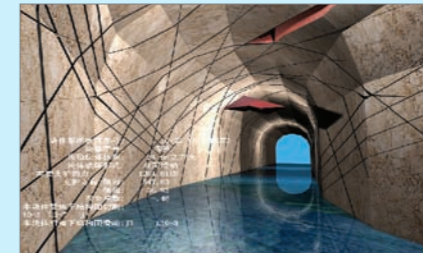
Temperature control simulation analysis of Xiluodu arch dam



Simulation analysis of temperature stress of intake dam section and power house of Jinghong Hydropower Station



Safety monitoring information analysis system for dams of the Northeast Power Grid



Stability analysis of Ludila diversion tunnel using 3D block group stability analysis methods

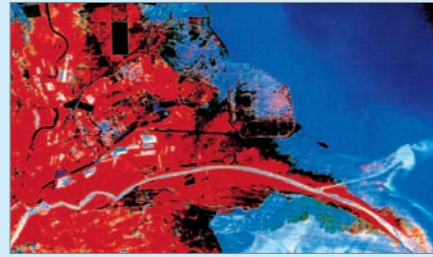


Safety monitoring system for Xiaolangdi Project

Department of Sediment Research



Movable bed model test on the confluent region of Weihe and Luohe Rivers in the middle reach of Yellow River



Evolution of the Yellow River estuary



Storm surge forecasting system for estuary and coast

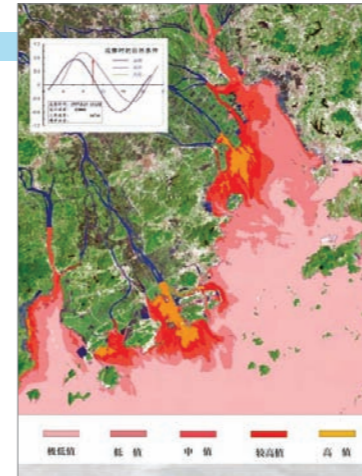


Debris flow confluence flume test

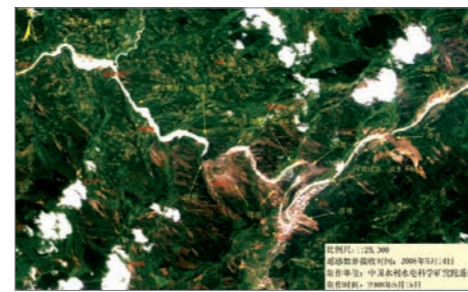


Site monitoring for wind and water induced erosion

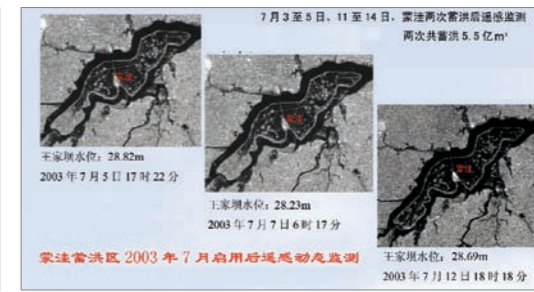
Remote Sensing Technology Application Research Center



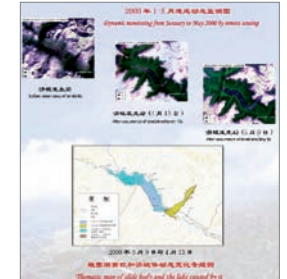
Water and sediment dynamic property analysis and remote sensing technology application in the Pearl River estuary



Distribution of major landslide induced by May 12 Earthquake in Beichuan County of Sichuan Province



Dynamic remote sensing monitoring



Department of Hydraulics



Dam body flood discharge test of the Baihetan Hydropower Station



Flow-induced vibration test for the emergency gate of the Xiluodu water project



Fish pass model test of the Beijing Shangzhuang water sluice



Sedimentation and pollution control test for water intakes of thermal/nuclear power stations



Hydraulic model test of high water head and large discharge spillway tunnel



Sea water cooling tower

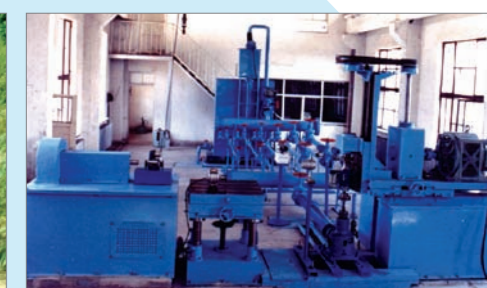
Department of Water Resources for Pastoral Areas



Forage irrigation



Ecological restoration of grassland

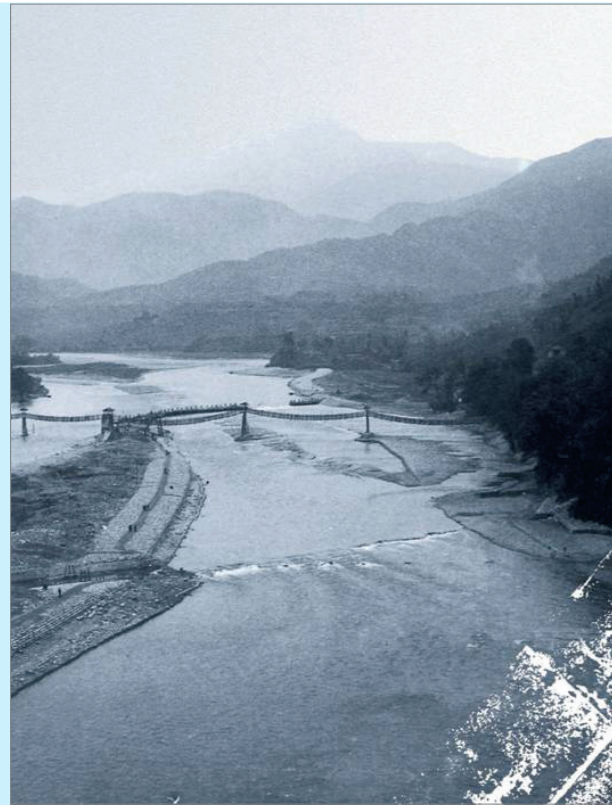


Pump laboratory

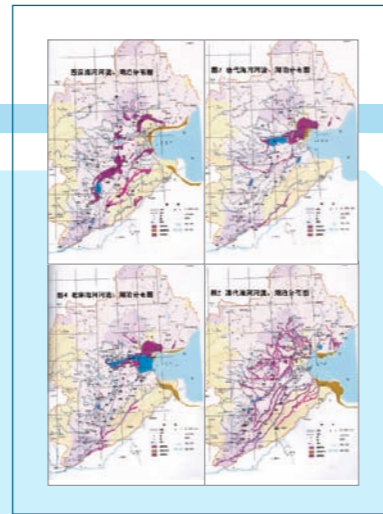


Solar power station

Department of Water Resources History



Full view of the Yuzui Water Diversion Structure of Dujiang Weir Project after the great repairing work in 1936



Distribution of rivers and lakes of Haihe River basin respectively in Western Han Dynasty, Tang Dynasty, North Song Dynasty and Qing Dynasty



Ruins of the Ling Channel



Restoration of the Baotun historical water diversion project

Research Center on Sustainable Hydropower Research



China Hydroenergy and Electrification



Updates on Hydropower Development



Floating Chamber for Collecting Greenhouse Gas



In-line Greenhouse Gas Monitor



Greenhouse Gas Monitoring in the Drawdown Area of the Three Gorges Reservoir

05 Science and Technology Enterprises

Beijing IWHR Corporation



In-situ testing of the left bank power plant of the Three Gorges Project



The completed rubber dam in Bangladesh



Hydraulic Model Universal Test Stand



Computer monitoring system of the right-bank power station of the Three Gorges Project

Beijing IWHR KHL Co. Ltd

Abrasion resisting concrete with multi-component cementitious powder at the Lijiaxia arch dam



Frost-break testing of asphalt concrete



GB waterstop structure and materials used in Shuibuya and Zipingpu CFRD



Construction of bituminous concrete facing of the Baoquan pumped storage project

Tianjin Institute of Hydroelectric and Power Research

Tianjin Institute of Hydroelectric and Power Research (Tianjin)



06 International Organizations

06-International Organizations

International Research and Training Center on Erosion and Sedimentation (IRTCES) (since 1984)



Chinese government and UNESCO renewing agreement concerning IRTCES (Beijing, 2005)

2nd International Conference on Estuaries and Coasts (Guangzhou, 2006)

9th International Symposium on River Sedimentation (Yichang, 2004)



Publication: Sediment Research

Chinese National Committee on Large Dams (CHINCOLD) (since 1974)



ICOLD's 20th Congress (Beijing, 2000)



Eight international milestone RCC projects rewarded at the 5th International Symposium on RCC Dams (Guiyang, 2007)



IWHR Vice President JIA Jinsheng was elected as ICOLD President at ICOLD's 23rd Congress (Brasilia, 2009)

Chinese National Committee on Irrigation and Drainage (CNCID) (since 1980)



Hosting ICID 19th International Congress and 56th International Executive Council (Beijing, 2005)



At the 20th International Congress on Irrigation and Drainage (Lahore, 2008)

International Association of Hydraulic Engineering and Research China Chapter (IAHR China Chapter) (since 1993)



29th IAHR Congress (Beijing, 2001)



At the 32nd IAHR Congress (Tunis, 2007)



Executive Meeting of IAHR Asia-Pacific Chapter (Nanjing, 2008)

07 International Exchange

Global Water Partnership China (GWP-China) (since 2000)



Inaugural ceremony of GWP China Yellow River (Zhengzhou, 2005)



High-level Roundtable Meeting on the Protection of Water Resources and Water Environment of China (Beijing, 2007)

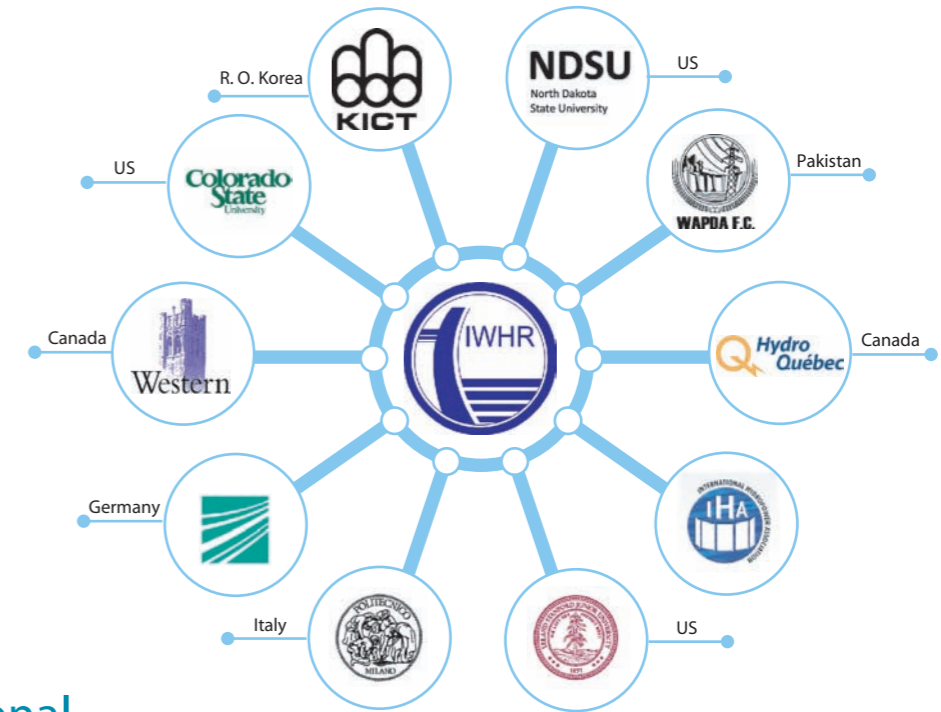


High-level Roundtable Meeting on Water and Sanitation of China (Beijing, 2008)

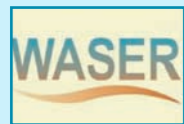


Hohai University-GWP IWRM Training Course (Nanjing, 2008)

Agreements of Cooperation



International Activities



World Association of Sedimentation and Erosion Research (WASER) (since 2004)



World Association of Soil and Water Conservation (WASWAC) (since 2010)



International Hydropower Association China Chapter (IHA) (since 2010)



High-level International Forum on Water Resources and Hydropower



World Water Forum



Singapore International Water Week



IWHR-KICT Joint Seminar



Stockholm World Water Week



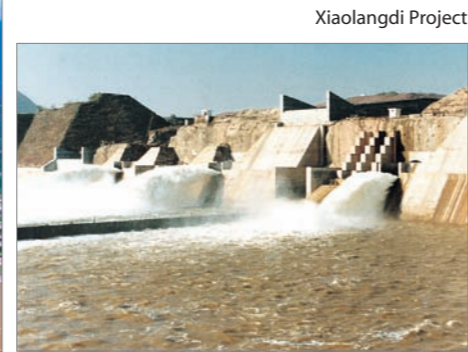
China-Japan Conference on Rivers and Dams

08 Typical Projects

IWHR has been participating in consulting, planning, designing, construction, equipment supply and other research activities for a variety of large water resources and hydropower projects.



Three Gorges Project



Xiaolangdi Project



Xiaowan Hydropower Project



Longtan Hydropower Project



Constructed wetlands to improve water quality and environment



Bank protection with vegetation in rural river restoration



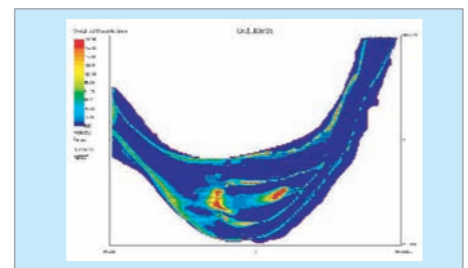
Tianshengqiao Hydropower Project



Longyangxia Hydropower Project



Ertan Hydropower Project



Spawning habitat simulation of upper Yangtze River reach



Dongjiang Hydropower Project



Bituminous concrete faced upper reservoir of the Baoquan Pumped-Storage Power Project



Lijixia Water Project



Riverfront landscape plan for the North Canal in Tianjin



River training and restoration



Tianhuangping Pumped-Storage Power Project



Wanjiazhai Water Conservancy Project



IWHR as independent consultant for Murum Hydropower Project (RCC dam) (Malaysia, 2008)



IWHR as supplier of waterstop materials for Merowe Dam (Sudan, 2006-2008)



IWHR as supplier of mechanical and electrical equipment for Dakr'tih Hydropower Project (Vietnam, 2008-2013)



IWHR providing technical site service for Sonai Nadi Rubber Dam (Bangladesh, 2002)