

Opening Address
on the 2nd International Symposium on Rockfill Dams

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In 2008, the Chinese National Committee on Large Dams (CHINCOLD) and the Brazilian Committee on Dams (CBDB) signed an agreement in Paris during the 80th anniversary of the International Commission on Large Dams (ICOLD).



Cooperation (China-Brazil)

In 2009, the First Symposium was successfully held in Chengdu, China. Today we meet together in the beautiful city of Rio, to have the Second Symposium, and to award winners of the International Milestone Rockfill Dam Project Prize.



1st Symposium in Chengdu, China in 2009

In recent years, the rockfill dam has fast developed and become a popular and competitive dam type. Countries all over the world have made great achievements in the area, obtained rich experience, and set up a significant foundation for its further development.



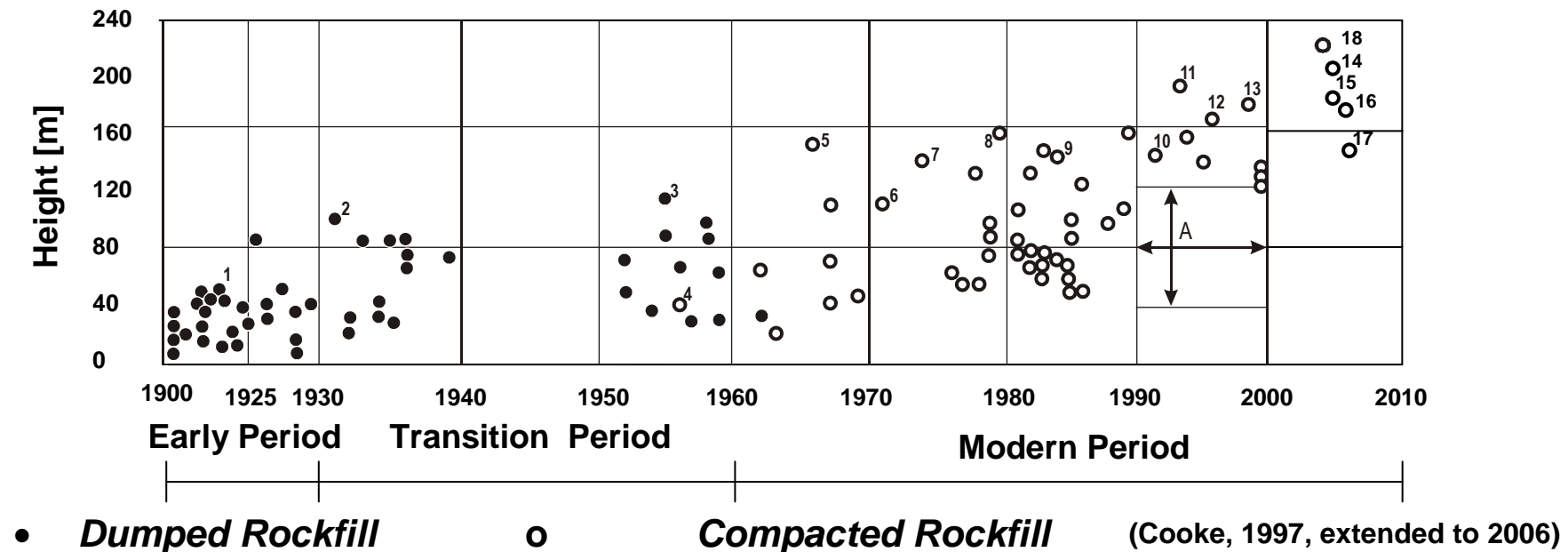
Shuibuya CFRD, H=233m



Irape EFRD, H=208m

The history of the rockfill dam can be divided into three stages.

The first stage: before the 1930s, the dam was formed simply by throwing in stones to fill it, and the dam type was mainly the concrete face rockfill dam. The dam height reached 100m.



The second stage: from the 1930s to 1960s, along with the increase of the dam height, the larger deformation of rockfill body led to panel and juncture cracks and dam leakage became a big problem. Therefore, the construction of rockfill dams was discontinued for a long time.



Salt Springs CFRD in USA, H=100m, constructed in 1931

The third stage: after the 1960s, the rockfill dam got a new lease of life. The development of the rockfill dam entered a new phase. A number of high concrete face rockfill dams have been successively built since then.

At present, the height of the concrete face rockfill dam can reach 200m, and the height of the core wall rockfill dam rises to 300m. Both types have become the two main dam types for current high rockfill dams. The rockfill dam has also become one of the most widely used and the fastest growing type at present in the world.

The development of the modern rockfill dam projects in China has greatly benefited from the national economic development, as well as scientific and technical advancement since the 1980s. From 1949 until the late 1980s, most of the high dams over 100m in China were concrete dams, and only three rockfill dams were constructed.

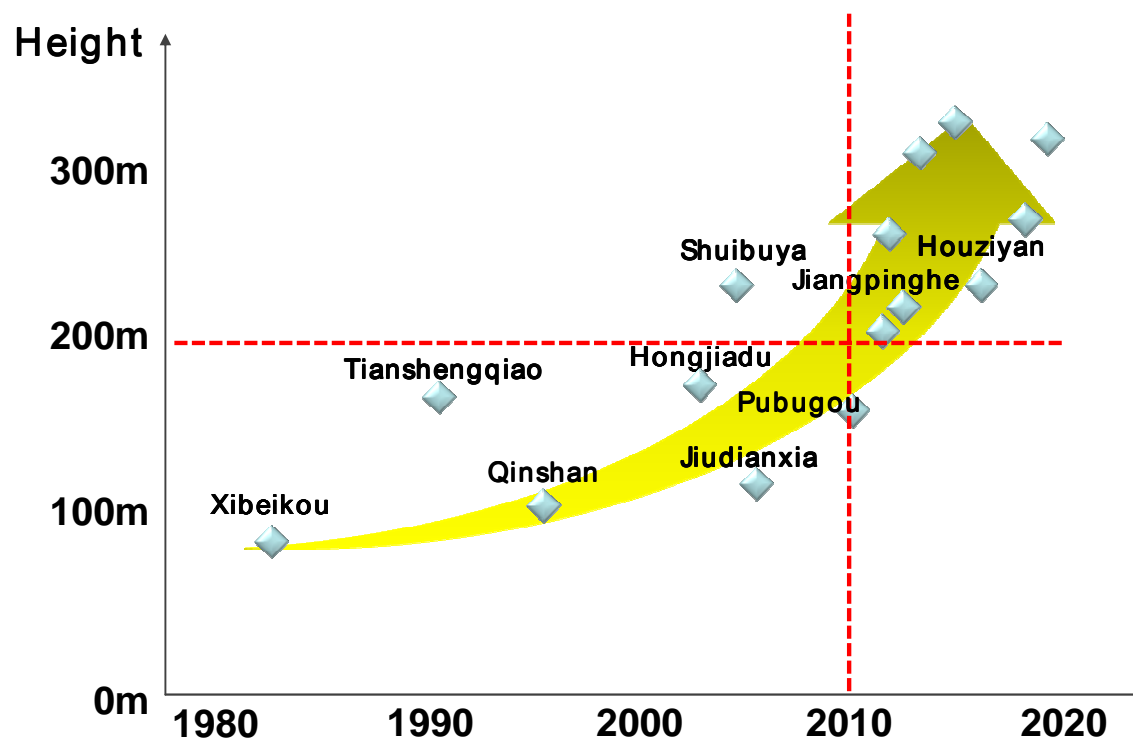
From the 1990s, the concrete face rockfill dams achieved a rapid development. What has attracted our eyes is that the rockfill dams already constructed, under construction, or to be constructed, are mostly large water complexes on major rivers. Currently, the dams play a very important role in hydropower construction in China.



The concrete face rockfill dam has developed very fast in China. Especially in the early 21st century, China had built a group of the 200m high concrete face rockfill dams, including the highest one in the world —Shuibuya. The mature age of modern technology for the construction of 200m concrete face rockfill dam has arrived. It provides a base for further heightening of the dam.



In addition, China has successfully conquered a series of key technologies for the construction of high concrete face rockfill dams. We have also made major technical breakthroughs for dam foundation treatment, earthquake and low temperature resistance. China is now focusing on scientific studies actively and carefully, looking to raise the dam height from 250m to 300m.



The 21st Century is a century with both challenges and opportunities. In recent years, global economic and social development have met many difficulties and problems. All of these form numerous challenges for dam construction.



We need to have a more scientific attitude and pay more attention to ecological and environmental protection in new dam technology development, and continue to promote development and sharing of advanced technologies, so that we can make greater contributions to the benefit of mankind.



Finally, I would like to express my sincere thanks towards the CBDB and ICOLD for their support and assistance to water resources and hydropower development in China. Congratulations to those who have won the International Milestone Rockfill Dam Project Prize.

We wish this Symposium a great success and Look forward to fruitful outputs through cooperation and exchange between CHINCOLD with CBDB, and all other members of ICOLD.

***I wish the symposium a great
success!***

My thanks to all!

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