

## **Introduction on the Taedong River Basin.**

The 17th Regional Steering Committee Meeting  
for Southeast Asia and the Pacific - UNESCO IHP  
November 2-6 2009  
Wuhan China

National Committee of DPR Korea for IHP UNESCO

Taedong River Basin is located at the west middle part of DPR Korea.

Taedong River starts at Handae Peak of MT.Rangrim in Taehung County, South Pyongan Province and flows with converged branches including Biryu River, Nam River and Jaeryong River. And there are Nampho City and Onchon County, South Pyongan Province on the right side, and Unchon County and Unryul County, South Hwanghae Province on the left side of Taedong River which is flowing into the West Sea of Korea passing through Pyongyang city.

There are over 600 streams in the river system, which are more than 5 kilometers long.

Taedong River is about 450kilometers long which is the fifth longest river in DPRK and its basin area covers over 20,000square kilometers.

In topographical aspect, the basin consists mostly of low highlands with an average elevation of 166m above sea level and slopes down from upperstream to downstream and from northeast to southwest.

In view of topography and geology Taedong River is mainly being developed by erosion and the upper reaches consist of deep valleys and the middle and lower reaches cover submerged areas.

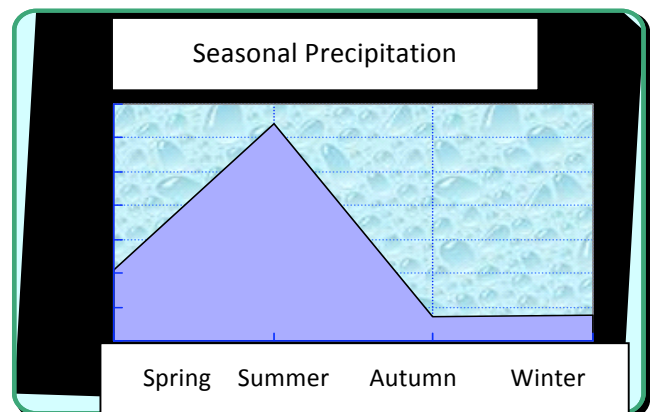
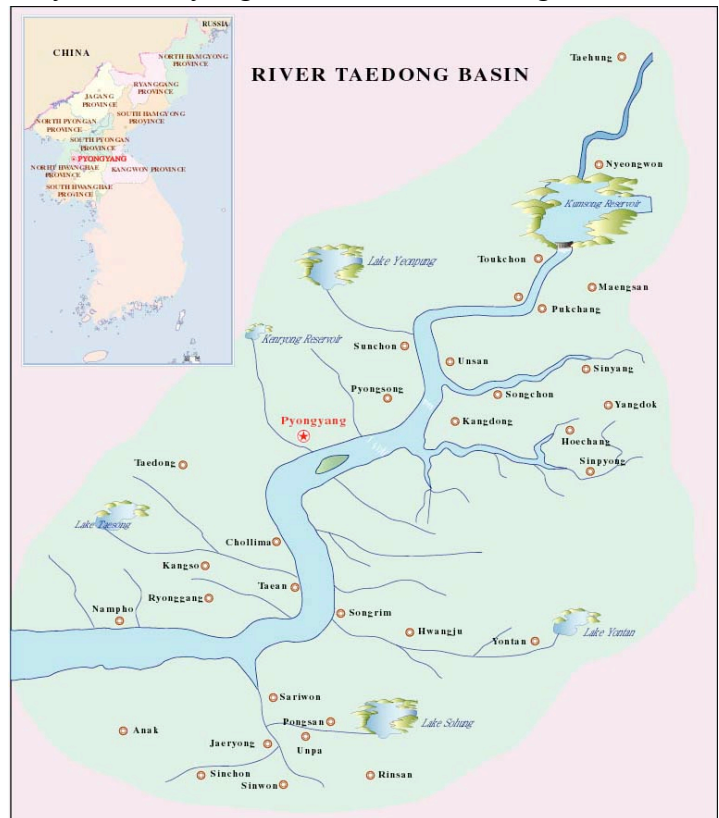
The river runs zigzag from the middle reaches to the lower reaches and around the hilly area of the Pyongyang penneplain in the lower reaches.

Limestone developed in the upper and middle reaches of the river affects greatly the flow in this area.

It rains a lot in Pukchang, Maengsan and Sungtong areas in the upper reaches of Taedong River and in the area centered on Sinpyong in the upper reaches of Nam River, but a little in Nampho in the lower reaches of Taedong River.

It also rains a little in the lower reaches of the Jaeryong River which is the main tributary of Taedong River.

The average annual precipitation is 1033mm in the overall reaches.



The average annual precipitation in Taedong River basin accounts for 22.7% in spring(April~June), 62.9% in summer (July~September), 7.5% in autumn (October~November), and 6.8% in winter(December~February). As it has seasonal differences, summer has the largest amount of precipitation, whereas autumn and winter has the smallest.

The average annual temperature in Taedong River basin is 8~12°C.

The Taedong River has many tributaries with their wide basin area and large amount of water including Jaeryong , Nam and Biryu Rivers.

The main tributaries are concentrated on the left bank.

The area of the basin of the largest Jaeryong River, which is 120-odd km long, is 3600-odd km<sup>2</sup> with its round form.

The source of water in the streams is rain, snow and ground water. The total amount of water resources is around 1,495,722×104m<sup>3</sup> and its flow is 470m<sup>3</sup>/s

With regard to distribution of surface water resources of the area, the surface water per unit area is great in the upper reaches and small in the lower reaches due to regional imbalance of its distribution. Biryu river is reported as the river with the greatest amount of surface water per unit area.

The amount of water resources of Taedong River basin is varied from seasons and months. The amount of surface water in August is the largest in Biryu river basin, among the main tributaries.

According to the increasing of the demand for water resource of Taedong River, there are large-scale hydroelectric power plants on the main stream of Taedong River and Nam River whereas the medium and small-scale hydroelectric power plants are built on the tributaries.

Taedonggang Power Station in Toukchon City located in the upper reaches of the Taedong River has the water management structure for control of water amount and water level in case of flood and water shortage, for water supply for irrigation and Pukchang Thermal Power Complex as well as for power production.

Sunchon, Songchon, Ponghwa and Mirim lock gates built along main stream of Taedong River mainly provide water level of the river and, additionally, they have the capacity to produce several ten thousands kw of electricity per year.

There are tens of the medium and small-size hydroelectric power plants in the area of the tributaries of Taedong River and most of them produce electricity only during irrigation as they are water reservoir for irrigation.

The metal, machine-building, electricity, textile, chemical, pharmaceutical, food processing and daily-goods industries built in Taedong River basin require large amount of water: for example, the Pyongyang Thermal Power Complex and Pukchang Thermal Power Complex consume large amount of water a day that is equivalent to the amount of a reservoir, and major factories and enterprises in Pyongyang City use over million m<sup>3</sup> of industrial water daily.

Irrigation by water of reservoirs is the most important use of agricultural water in Taedong River basin. The total irrigation area covers 210000 ha, out of which 155000ha are paddy fields and

55000ha are dry fields.

Coastal water area of Taedong River is under the favorable hydrological and ecological conditions for fish farming. After that West Sea Barrage was built, Taedong River turned into a great artificial lake and freshwater fishpond.



Because of the construction of the West Sea Barrage, river and marine transportation is very fast developed.

West Sea Barrage, built on 8km-long sea of the Korean West Sea, is completed in a short period from 1981 to 1986. There are dam, 3 lock chambers, 36 sluices, 3 fishways and barrage monument. There are railway, motorway and pavement on the dam and lock chamber capable of passing 50000- ton ships through.

The capacity of Nampho port is 9.5 million ton per year and it has a space that can be harbored 7 ships of 20 000~40 000 tons. The harbors and quays arranged in coastal area including Nampho port are responsible for the transportation of domestic and international cargo of Pyongyang and the western region.

Every year hundreds of thousands m<sup>3</sup> of soil, sand and mud have flown into the river to be deposited, which makes the unprecedented species of hydrophyte and fish to survive.

In the coastal area there are 650 species of beasts and 220 species of birds.

There are 77 species of freshwater fish and 52 of these are the major species of this area, which are adapted to warm water.

In Taedong River basin, there are the revolutionary sites showing immortal revolutionary exploits of President Kim Il Sung and the General Kim Jong Il established in the liberation and construction of socialist country and the cultural recreation resources, the scenery resources and the mineral spring resources which are being used for the recreation life, promotion of health and the cultivation of emotion and feelings of the people. And also there are the historical remains including the ancient and cultural relics showing the pride of Korean nation's eternity and superiority.

The pictures in bellow are the commemorative buildings constructed at Taedong River



Kim Il Sung University



Mansudae Art Theatre



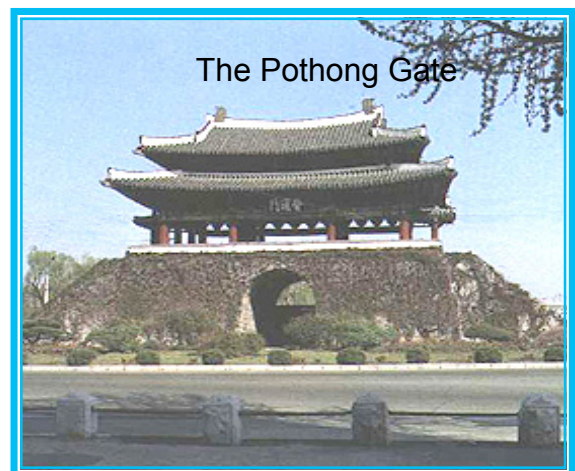
Pyongyang Maternity Hospital



King Tangun's Mausoleum



The Pothong Gate





The May Day Stadium



Ryanggang Hotel

랑강호텔



Light Sports Gymnasium

공체경기장



Pyongyang Circus



The Taekwondo Grand Palace

