Introduction to the Progress & Recent Development of China’s Inland Waterway Transportation

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The "Outline for the Development of China Inland Waterway Transport" issued by China’s Ministry of Transport in 2020

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China’s main inland waterway layout is vividly referred to as the "Four Vertical and Four Horizontal," forming the core framework of the inland transportation network.

03 **Jianghuai Canal**

Jianghuai Mainline Canal, the latest addition to the "Four Vertical" corridors, which has recently been completed and opened for navigation.
The Outline for the Development of China Inland Waterway Transport

The “Outline for the Development of China Inland Waterway Transport” issued by China’s Ministry of Transport in 2020. According to the Outline, China’s primary goal by 2035 is to establish a modern inland navigation system.
China’s goal for inland waterway freight turnover is to make up 9% of the total national freight turnover.

The emergency response of critical waterway no more than 45 minutes.

Establish east-west and north-south waterway connectivity.

Modernize the governance system and governance capabilities.
Main Tasks of China’s Building Inland Waterways

1. Construction of High-Grade Waterways
2. Resolving the Three Gorges Hub Navigation Bottleneck Problems
3. Creating North-South Waterway Transport Corridors
4. Navigation Network of Guangdong-Hong Kong-Macao Greater Bay Area
The Layout of China’s Main Inland Waterways

China's main inland waterway layout is vividly referred to as the "Four Vertical and Four Horizontal," forming the core framework of the inland transportation network. This network encompasses major rivers and canal systems, providing crucial support for water transportation across the country.
The "Four Horizontal" East-west cross-basin water corridors

The "Four Horizontal" refers to four cross-regional water transport corridors that play a key role in east-west transportation.
The “Four Horizontal”

1. The Yangtze River (长江) Mainline and its Major Tributaries

- The Yangtze River Mainline

China’s longest river, 6,300 km, serves as a crucial inland transport link. Connects 9 provinces and municipalities.

From Shuifu to Shanghai, 2,838 km, forms the heart of China’s inland waterway system, facilitating extensive transport.
The “Four Horizontal”
2. The Xi River(西江) Mainline and its Major Tributaries

- The Xi River Mainline

The Xi River is a significant river in the Pearl River Basin, mainly flowing through the provinces of Guangxi and Guangdong.
The “Four Horizontal”

3. The Huai River (淮河) Mainline and its Major Tributaries

- **The Huai River Mainline**

  The Huai River Basin is located in eastern China and serves as an important watershed between the northern and southern river systems.
4. The Heilong River (or The Amur River) (黑龙江) 
Mainline and its Major Tributaries

- The Heilongjiang River Mainline

The Heilong River Basin serves not only as important border rivers between China and Russia but also as significant water transport corridors within the region.
The “Four Verticals” refer to four north-south cross-basin water transport corridors. Some of these corridors have historically existed in China, while others are currently in the planning and implementation stages. These corridors serve as vital links in the north-south direction.
The “Four Vertical”
1. The Jinghang Grand Canal (京杭大运河)

The Jinghang Grand Canal is the longest canal in the world, stretching 1,794 kilometers and linking Beijing to Hangzhou.
The “Four Vertical”
2. Zheganyue Canal (浙赣粤通道)

This corridor is still in the planning stage and will connect provinces including Zhejiang, Jiangxi, and Guangdong, forming a new north-south water transportation corridor to further promote economic and resource exchange between the north and south.
The “Four Vertical”
3. Han-Xiang-Gui River Corridor (汉湘桂运河)

This corridor is also in the planning stage and will connect provinces such as Hubei, Hunan, and Guangxi, forming another important north-south water transportation corridor to increase regional water transportation capacity and convenience. This corridor will link two of the most important horizontal corridors in the “Four Vertical” system—the Yangtze River and the Xi River.
The “Four Vertical”
4. Yangtze-Huaihe Grand Canal (江淮运河)

The Yangtze-Huaihe Grand Canal is a newly built canal system in recent years, primarily consisting of the project of Redirecting Yangtze Water to Chao River (引江济巢工程).
The Yangtze-Huaihe Grand Canal, a water diversion project jointly constructed by Anhui and Henan provinces, was officially launched in December 2016 with a total investment of 91.271 billion yuan.
Yangtze-Huaihe Grand Canal (江淮运河)

Following the opening of navigation on the Yangtze-Huaihe Grand Canal, a "cross" shaped (工) waterway transportation network has been formed in Anhui Province, altering the current situation of water transportation detouring via the Jinghang Grand Canal between the Huai River and Yangtze River regions, thereby shortening distances by 200 to 600 kilometers.
Three Sections of Yangtze-Huaihe Grand Canal

- Section 1: Redirecting Yangtze Water to Chao Lake Section (引江济巢段)
- Section 2: The Yangtze-Huaihe Connection Section (江淮沟通段)
- Section 3: The Huai River Northward Diversion Section (江水北送段)
Section 1: Redirecting Yangtze Water to Chao Lake Section (引江济巢段)

The Redirecting Yangtze water to Chao Lake (引江济巢段) is the first part of the Yangtze-Huaihe Grand Canal. It utilizes two diversion hubs, Zongyang (枞阳) and Fenghuangjing (凤凰颈), to divert water from the Yangtze River into Chao Lake.
Section 2: The Yangtze-Huaihe Connection Section (江淮沟通段)

The Yangtze-Huai River Connection Section (江淮沟通段) is the second part of the Yangtze-Huaihe Grand Canal. It utilizes the connection of Pai River (派河) and Dongfei River (东淝河) waterways. Through the Pai River Estuary (派河口) and Shushan Hub (蜀山枢纽), water is lifted to enable the Yangtze River water to cross the watershed between the Yangtze and Huai River, achieving a "water flows uphill" effect, before flowing into Wabu Lake (瓦埠湖) and ultimately entering the Huai River (淮河).
Section 3: The Huai River Northward Diversion Section (江水北送段)

The Huai River Northward Diversion Project (江水北送段) is the final part of the Yangtze-Huaihe Grand Canal. It utilizes the abundant tributaries on the north side of the Huai River to send water from the Yangtze River northward to the northern Anhui and eastern Henan regions.
### Effect and Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Efficiency</strong></td>
<td>It improves transportation efficiency and reduces logistics costs</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>It promotes regional economic development.</td>
</tr>
<tr>
<td><strong>Integration</strong></td>
<td>The navigation of the Yangtze-Huaihe Grand Canal optimizes the comprehensive transportation system.</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>The Yangtze-Huaihe Grand Canal Project also plays a crucial role in environmental protection and ecological restoration.</td>
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Thank you!

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