

Shanghai Port Development Promotes Sustain-  
ing Growth of Trunk Economic Zone of  
Changjinag River

Shanghai Port Authority  
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# 上海港建设促进了长江干流 经济带的持续发展

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利用沿海、沿江、沿湖发展运输的合理性早已被世界各国经济发展的历史所证实。长江是我国东西和南北贯通的大动脉，目前干流已初步形成了经济发展带。90年代开发开放浦东的改革大潮，把上海推向了改革开放的前沿。上海要成为贸易中心，是和上海港的航运枢纽地位分不开的，要实现这一战略目标，自身的建设很重要，但必须有沿江经济带作为坚强的后盾。

## 1、利用干流水运发展经济带

长江水系流经10个省市，航道总长7万余km，占全国河流通航里程的65%，流域内人口占全国的38.5%，耕地占全国的25%，工农业总产值占全国的40%以上。从重庆沿江而下至上海港的2399km干流两岸分布有列入国家计划的港口25个（没有包括上海港），承担着沿江经济带发展所需的物资集疏和人流交往的运输任务。流域内拥有100多个大、中、小城市，重庆、武汉、南京、上海等沿江重要城市则为经济网络中心。特别是长江三角洲，工农商并茂，集中了上海及苏南经济中心城市，商品经济十分活跃，长期以来是我国经济发达的地区之一。

从工业合理布局的观点出发，长江干流的优越运输条件和丰富的淡水资源已经吸引了大量需要原材料的工业和电厂沿江布置，初步形成了我国重要的沿江工业走廊。目前沿江有长岭、武汉、九江、安庆、南京、上海等大型炼油厂和乙烯化工厂，武钢、马钢、梅山、宝钢等大型钢铁企业，南京、谏壁、扬州、利港、徐六泾、南通、石洞口及在建的外高桥大型火力发电厂，这些基础工业大大推动了沿江经济带的发展。

但是，长江流域经济带与沿海经济带相比，在面积和人口大致相仿的情况下，国民生产总值、工农业总产值、进出口总额等存在较大差距，影响了长江经济带的对外开放。

长江三角洲所包括的江苏、浙江、安徽、上海三省一市的面积，占全国面积的3.64%，但人口密集，技术力量雄厚，产品门类广，在国民生产总值、外贸进出口总额、人均国民生产总值和工农业总产值等方面与长江干流和全国相比处于领先地位。

目前长江流域铁路网分布不均，而公路和航空货运能力弱，不适宜大运量运输，因此沿江企业大量的原材料势必利用水运。而港口作为水运网络的节点和运输的集散点就显得尤为重要了。但长江干流的大多数港口装卸的货物类同，均以煤炭、石油、金属矿石、矿建材料等为主，缺乏现代化高效率的装卸设备。干流港口之间平均距离不足100km，船舶吨位较小。这些在一定程度上对经济带的发展都起着制约作用。

## 2、促进长江干流港口间的物资流通和人员交往

1949年上海解放以后，为适应上海市、长江流域和全国的国民经济发展以及世界航运发展的需要，港口设施不断恢复、改造和新建，进行了航道沉船打捞、清理、疏浚。至1995年，上海港新建和改建码头泊位135个，其中万吨级以上泊位65个，码头线长度达18.6km（全是公用码头）。1995年底，上海港共有生产泊位275个，其中万吨级泊位89个，码头线长32.4km。其中港务局公用生产泊位140个，万吨级泊位68个，码头线长19.0km。上海港通海航道由于长江口拦门沙自然水深仅6m左右，1973年决定人工挖槽。1975年6月，长江口南港南槽航道经人工疏浚，正式交付使用。1984年10月，开辟后用南港北槽航道，南槽航道恢复天然航道。北槽航道深度7.0~7.3m，底宽250m，可供吃水9.5m的船舶乘潮进港。现长江口深水航道治理工程定位目标已明确，将采用疏浚和整治相结合的方法，使长江口南港北槽水深达到12.5m，以满足第四代集装箱船全天候进港，10万吨级散货船满载乘潮进港。

自1984年以来，上海港吞吐量连续12年突破了1亿t，已跻身于世界大港的前列。现与世界上160多个国家和地区的400多个港口、600多家船舶公司建立了海上贸易往来业务。从上海港始发的集装箱航线已达14条（其中国际集装箱航线12条），每月有400多个航班，其中国际航班280多个，国内航班120多个。

上海港在总体布局规划和建设过程中，充分考虑了长江流域经济发展的需要。

(1) 吞吐量预测中，包含了长江流域经济带增长的运量、货类、货量、流向，扩大港口综合通过能力。

(2) 预测长江干流通航的船型及其对上海港口建设的要求。建设长江驳船的固定专用和兼用泊位、浮筒泊位、锚地，并注意其布局的合理性。

(3) 选择适应长江干流通航靠泊上海港船型的装卸工艺和机械设备。

(4) 建设长江干流通航客船的专用客运站。

(5) 1979年，在长江口外绿华山东侧海域设立减载站，把10万吨级的“双峰海”号改装为减载船，承担国外进口的散粮、矿石、化肥等由海进江货物的减载过驳作业。

(6) 60年代末，上海港在江苏省境内建设了张家港港区，现已成为长江南岸，苏、锡、常地区的主要港口，对地区和长江三角洲的经济发展起着重要的作用。

1985~1994年10年间，长江干流25个港口每年完成的吞吐量中，通过上海港的吞吐量逐年增加，始终保持在18.4%以上，占干流港口吞吐总量的20%（见下表）。

历年上海港吞吐量（A）与干流港口通过上海港吞吐量（B）的比较

年份	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
A/万t	11 290.5	12 604.2	12 832.5	13 320.2	14 604.4	13 959.0	14 678.8	16 296.8	17 595.6	16 580.9
B/万t	2 106.4	2 403.5	2 366.6	2 515.3	2 785.2	2 628.5	2 825.4	3 029.6	3 238.1	3 068.3
A/B/%	18.7	19.1	18.4	18.9	19.1	18.8	19.2	18.6	18.4	18.5

由上表可知，10年中上海港吞吐量增加了47%，年均增长4.4%，长江干流港口通过上海港的吞吐量增加了46%，年均增长4.3%。干流港口通过上海港吞吐量和上海港吞吐量是同步增长的。

长江干流的运输潜力还很大，25个港口所完成的吞吐量还不及上海港所完成的吞吐量，1991，1992和1993年分别完成14 022.2万t，15 474.4万t和15 844.3万t。

长江干流25个港口的年旅客发送量达2 000万人次左右，1993年发送到上海港的旅客为313万人次。

### 3、为长江干流经济带持续发展创造条件

据预测，上海港2000年、2010年和2020年吞吐量将分别达到2.2亿，2.8亿和3.2亿t，集装箱量在1995年完成152.7万标准箱量基础上也将有更大的提高。

为适应长江干流经济带发展，上海港口吞吐量增长及黄浦江内对环保有影响的港区外迁的需要，并结合长江口航道整治和疏浚达到12.5m的要求，港口规划布局的目标是：长江口罗泾建成以煤炭为主的干散货深水港区；长江口外高桥（包括高桥咀二期和五号沟）建成以集装箱为主体的深水港区；杭州湾北岸金山咀建成综合性新港区；黄浦江内按“控制规模、调整功能、更新改造”原则，在新港区尚未建成之前，基本保持原有规模和功能前提下，将对城市环保有影响的一部分码头迁出黄浦江，建设国际、沿海、高速客运站。

上海港口建设将为长江干流经济带发展创造的更好条件有：

(1) 为尽快把上海建成国际航运中心，首先要将上海港建成集装箱的枢纽港。因此上海港结合长江口航道的整治，正在加速集装箱码头的改造和建设，增加集装箱码头的通过能力，使长江干流地区丰富的集装箱货源的集疏运和进出口能得到保证。

(2) 上海港口规划建设重点迁到长江口南岸后，码头等级提高，船型加大，转口到长江去的物资可大大缩短运距。

(3) 长江口航道整治和疏浚从7m至12.5m，可以为南京、镇江、张家港、南通各港提供更好的航行条件。

(4) 上海港口与保税区加强合作，加快功能开发，形成以转口贸易功能为主体，具备出口加工、物资集散、保税储运、商品展示的综合服务功能。逐步取消外贸经营限制，吸引更多的国内外各类企业到上海经营外贸业务。

(5) 港口按统一规划，多家建港，谁投资、谁得益原则，鼓励国内外企业来上海港建设和经营。

### 4、建议

为保证长江干流经济带21世纪持续发展，建议国家组织长江干流地区综合运输规划研究，进行广泛调查，收集客货运系统的现状资料，提出现代化运输模型及带有全流域性的具体可实施的项目。

上海港作为我国大陆沿海和长江干流的重要水运枢纽，正在加快建设步伐，抓住机遇，迎接挑战。它将以崭新的面貌，服务全国，面向世界，满怀信心地跨入21世纪。

## **Shanghai Port Development Promotes Sustaining Growth Of Trunk Economic Zone Of Changjiang River**

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The rationality of transportation development relying on coastal, river and lake band has long been proven by those economic upgrowth in the history of various countries worldwide. As a nationwide-linking trunk artery, **Changjiang River** is now build a preliminary economic development zone at trunk stream. Thanks to the renovation, openness and exploitation of **Pudong Area** that was initiated in 90s', **Shanghai** has been pushed onto the forefront of the reform and openness. It has confirmed that the final creation of **Shanghai** being a trade center is closely integrated with key shipping position of **Port of Shanghai**. To reach such a strategic target rests on not only self promotion of the City but also a strong support by economic zone along the River.

1. Development at economic zone by utilizing waterborne transportation at trunk stream

**Changjiang River** network covers 10 provinces and cities with over 70,000 km channel, making up 65% mileage of overall navigable waterways in the country, 38.5% of total population across the country, 25% of cultivated area and over 40% of total output value of industry and agriculture of the nation. 2399 km trunk stream from **Chongqing** at upreaches to **Shanghai** at down-stream covers 25 ports (excluding **Port of Shanghai**) that are listed on the State plan. Those port facilities have undertaken both goods and passenger distribution for economic development along the River valley. There are more than 100 large, middling and small cities alongside, in which those important cities constitute its economic network centers such as **Chongqing**, **Wuhan**, **Nanjing** and **Shanghai**. **Changjiang River** Delta has long been regarded as one of the highly developed economic areas, featuring with simultaneous prosperity of industries, agriculture and commerce as well as the geographical concentration of such important cities as **Shanghai** and other economic central cities at **South Jiangsu Province** with vigorous commercial activities.

From view-point of rational industrial distribution, a great many raw material-consuming

industries and power plants have been attractively distributed along the trunk valley area mostly due to ideal transportation, climate and abundant fresh water resources as well in the region, there preliminarily appears a significant industrial corridor alongside. Those infrastructure industries have obviously contributed to economic promotion of the region. Currently, there are large scale refiners and ethylene plants in cities of Changlin, Wuhan, Jiujiang, Anqing, Nanjing and Shanghai; steel plants in Wuhan, Maanshan, Meishan and Baoshan; and those power plants in Nanjing, Jianbi, Yangzhou, Ligang, Xuliujing, Nantong, Shidongkou and Waigaoqiao which is now under construction.

The economic zone at trunk valley of Changjiang River that holds same land space and population as those at coastal, however is far behind the latter in terms of GNP, total production output of industry and agriculture and total production of import and export, thus has stunted further expansion of openness of the valley.

The valley of Changjiang River encompassing Jiangsu, Zhejiang, Anhui Provinces and city of Shanghai accounts for 3.64% of total land space of the country, featuring with the high population density, possession of powerful lead-taking technologies and availability of diversified products. The valley has got comparative leading position in the fields of GNP, total output value of foreign trade, GNP per capita and total industrial/agriculture production value of all the country.

Because of less proportional distribution of railway system and insufficient highway and air-way haulage capability, all transportation for raw materials consumed by those enterprises in the valley of Changjiang River has largely relied on water-way accordingly. The Port is reckoned of essential as an interface for both transit and distribution in complete transportation chains. The commodities handled by most ports in the valley, however, are mostly restricted to coal, petroleum, metal ores and construction materials due to lack of up-to-date efficient handling facilities. The average haulage distance among those trunk ports is 100km only and smaller ships are prevailing in transportation. All these factors have, to some extent constrained the economic zone from further development.

2. Facilitation of both goods flow and persons exchanges among the ports at valley of

## Changjiang River

Since liberation in 1949, port facilities have been progressively recovered, reconstructed and built in combination with such works of sunken-vessels removal, cleanings and dredging at the channel in attempt to fit not only the widespread national economic upgrowth in city of Shanghai, the valley of Changjiang River and whole country, but also needs for world shipping industry development. By year 1995, Port of Shanghai has constructed and renewed 135 berths including 65 big ones capable of receiving 10,000 DWT ships with 18.6km quay length for public use. By the end of 1995, Port of Shanghai has managed 275 service-berths including 89 large ones. for accommodating 10,000-plus DWT vessels. The Port has possessed 32.4km quay length. Among all the service-berths in the Port, 140 are managed by Port Authority for public use including 68 big ones with 10,000-ton accommodation capability, and 19.0 km of quay length. In 1973, dredging works were designated in attempt to deepen current sea South Channel at Estuary of Changjiang River there lies a bar making mere 6-m of natural water depth. In June 1975, the dredging works was completed and put into full service. By October 1984, the North Channel of South Passage was exploited as service channel to replace the South Channel which maintains as natural waterway. 9.5-m draft vessels can call the Port by tide range via North Channel which is 7.0 to 7.3 meters deep and 250 meters wide of bottom. The target of channel deepening works at Changjiang River has explicitly positioned with incorporating dredging and mitigation to deepen the channel upto 12.5m at North Channel of South Passage as to eventually receive weather-freely fourth generation container ships, and 100,000 DWT bulk carriers by tide range as well.

Since 1984, Port of Shanghai has witnessed handled-throughput of over 100 million tons for consecutive 12 years, ranking forefront of top ports in the world. The Port of Shanghai is now keeping shipping trade with over 400 ports and harbours and 600-plus shipping liners in over more than 160 countries and regions worldwide. The Port is now served with 14 container routes (12 of international) with 400 monthly voyages (over 280 international and 120-plus domestic).

Full considerations in needs of economic development at valley of Changjiang River have been placed into Port's master layout and expansion plan, detail as below:

- a) At stage of forecast, have type of goods, tonnage, orientation and comprehensive handling capacity of those ports at economic zone along valley of Changjiang River been included.
- b) Forecast has also covered the ship size sailing at trunk valley of Changjiang River and the demands for expansion of Port of Shanghai as well. To construct both dedicated and compatible berths serving Changjiang River barges, floating berths, anchorage yards, and give attention to layout justification.
- c) Select those handling processes and machinery fitting to those vessels that navigate at trunk stream of Changjiang River dedicated to calling Port of Shanghai.
- d) Construct dedicated passenger terminal for those ships to navigate at trunk stream of Changjiang River.
- e) In 1979, a floating station south to Luhuashan, off Estuary of Changjiang River was anchored for mid-stream discharging operation of imported bulk grain, ores and fertilizers from sea-going vessels. The station was converted from huge bulk carrier of "Shuangfenghai".
- f) By the end of 1960s', Port of Shanghai got its subsidiary handling terminal of "Zhangjiagang" in Jiangsu Province. As a key handling base in the region of Suzhou, Wuxi and Changzhou at south bank of Changjiang River, the terminal has been contributed to economic development of the region and the Changjiang River Delta as well.

During the 10-year period from 1985 to 1994, of all yearly throughput completed by 25 ports along trunk stream of Changjiang River, the transshipped traffic through Port of Shanghai has steadily increased by over 18.4% , making up 20% of the total handled by trunk stream ports. Refer to following table:



**Throughput Comparison**  
**between the total by Port of Shanghai (A) and transshipment**  
**via the Port dedicated to trunk stream ports along Changjiang River (B)**

<i>Year</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>
<b>A</b>	11290.5	12604.2	12832.5	13320.2	14604.4	13959.0	14678.8	16296.8	17595.6	16580.9
<b>B</b>	2106.4	2403.5	2366.6	2515.3	2785.2	2628.5	2825.4	3029.6	3238.1	3068.3
<b>B/A</b>	18.7%	19.1%	18.4%	18.9%	19.1%	18.8%	19.2%	18.6%	18.4%	18.5%

Unit: 10,000 tons

The table reveals that the throughput completed by Port of Shanghai over the past 10 years from 1985 to 1994 has significantly increased by 47% with 4.4% of yearly growth rate, while transshipment via the Port from/to trunk stream ports along Changjiang River by 46% and 4.3% respectively. This suggests the concurrent growth of total throughput and transshipment via the Port.

The potential transport capability of trunk stream of Changjiang River is far from exhausted, and the traffic handled by 25 trunk stream ports is little bit less than those by Port of Shanghai. The figures are 140.222 (1991), 154.744 (1992) and 158.443 (1993) million tons.

The passenger traffic handled by these 25 trunk stream ports reaches 20 million, and 3.13 million by the Port of Shanghai in 1993.

3. **Creation of climate for sustaining development at trunk stream economic zone of Changjiang River**

An anticipation reveals that the Port of Shanghai is expected to handle 220 mil., 280 mil. and 3.20mil. tons in years of 2000, 2010 and 2020 respectively, while container traffic will be mushroomed to higher level from current 1.527 mil TEUs of 1995.

The Port has targeted its layout plan as to cope with the economic expansion at trunk stream of Changjiang River, traffic upgrowth in Port of Shanghai, relocation of environmental sensitive handling facilities in current Huangpu River, and 12.5 m water depth sea

channel as well. The layout plan consists of: construction of Luojiang deep-water terminal dedicated to coal handling at Estuary of Changjiang River; creation of Waigaoqiao deep-water terminal (including phase two at both Gaoqiaozui and Wuhaogou terminals) at Estuary of Changjiang River that are mostly for container handling; development of Jinshanzui Multi-functional terminal at north bank of Hangzhou Bay; In accordance of “Scale Limitation, Function Alignment And Renewal/Restructure”, some environmentally unacceptable facilities will be relocated out of Huangpu River and construct passenger terminals for international, coastal and express traffic, while current scale and functions of the facilities at Huangpu River section will remain unchanged fundamentally.

The further growth of the Port of Shanghai is to eventually provide need-satisfied conditions for the development at trunk stream of Changjiang River. They include as follows:

- a) As a step towards speedily building Shanghai into an international shipping center, priority should be given to creation of trunk container port in Shanghai. The Port of Shanghai is now making endeavor to enlarge capacity for container handling by promptly converting and constructing current facilities incorporation with channel deepening mitigation works at Estuary of Changjiang River, thus will consequently secure distribution and import and export trade of plenty sources of containerized commodities at trunk stream of Changjiang River.
- b) Upon completion of moving key Port's construction plan to south bank of Changjiang River, the berths will be significantly upgraded for receiving bigger vessels calling the Port. Thus will lead to shorten transportation distances for those transited cargoes destined to Changjiang River area.
- c) Channel deepening mitigation works at Estuary of Changjiang River from current 7 m to final 12.5 m will optimize navigational conditions for such ports as Nanjing, Zhenjiang, Zhangjiagang and Nantong etc..
- d) The Shanghai Port will accelerate functional exploitation by strengthening its cooperative ties with bonded warehouses as to generate a comprehensive service system with transit and entrepot trade business in prevailing, plus export-oriented processing, goods

distribution, bonded warehousing and commodity showcasing etc.. By progressively eliminating restraints currently governing local foreign trade operations, to create health environment for more and more various enterprises from home and abroad dealing international trade business in Shanghai.

- e) To encourage those enterprises from home and abroad to involve in both port construction and management by introducing the principle of integral planning, multi-participation in port construction and "Who invest, who get profits".

#### 4. Suggestions

To ensure sustaining development at economic zone of the trunk stream of Changjiang River in 21st. century, we propose that the State should initiate the study on comprehensive transportation system at trunk stream of Changjiang River, proceed widespread researches, gather those data currently available to both passenger and cargo transport system, and work out modern transportation mode and those projects practically operational to the whole valley of Changjiang River.

Having been regarded as vital hub port at coastal region and trunk stream of Changjiang River of China, Port of Shanghai is taking a great stride in port construction, seizes opportunity and faces up to challenges. We have an expectation of Port's aggressive pace into 21st century with new profile, nationwide service and worldwide connections.