

Merry signals from **Cho Gao canal “knot”**

● Prof. Ph.D. **TRAN MINH QUANG**
Engineer. **PHAM ANH TUAN**

Mekong Delta is a rich lowland and the main place where produces agricultural and aquatic products for export, with population over 20% the whole country's population, contributing about 20% GDP of the whole country. For hundreds years, waterway traffic - especially internal waterway - has been played a very important role in cargo transport in Mekong Delta.

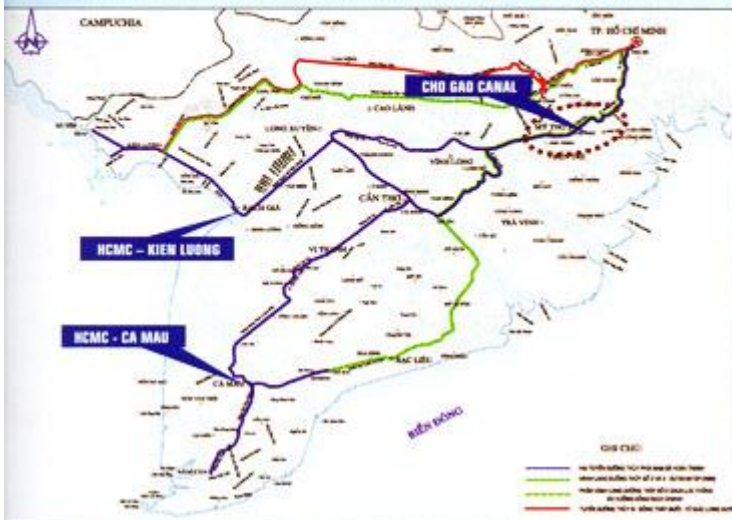
However, the lines and channels for the ships to and fro the ports of Mekong Delta are limited by the depth, so that the ships over 5000 tons cannot to and fro frequently, and consequently, 80% import/export cargo of the whole country have

to be transported to HCM City to export/import through the sea ports.

THE LIFE-LINE WATERWAY OF CHO GAO CANAL

Cho Gao Canal, which used to be a canal line, is 28km long, started in 1907 and finished in 1908 to

connect Rach Tra (Rach La) River and Ky Hon with a small scale, the bottom width is 15m, the boat running depth is 3.5m. The canal lies on two national waterways, which are the lines connecting Tien River and Vam Co River, passing Chau Thanh district (Long An) and Cho Gao district (Tien Giang). Cho Gao Canal is the common name of the whole line, including 3 sections: the section from Ky Hon to Tien River, about 6.8km long, 30-40m wide; the middle section is about 11.6 km long, relatively straight, 30-40m wide, heavily collapsed, has Cho Gao Bridge with narrow boat



passing, just 26m wide; the section from Rach La to Vam Co River, about 8.8km long, has many curves and watersheds, with the width changing from 100-250m over 12 sub-sections (Map 1)

Though it is not long, Cho Gao Canal has to receive a quite big cargo amount, about 12-13 million tons per year and there are about 1400-1800 boats and ships with different capacity, from 200-1000 tons (excluding small boats) to and fro daily, causing an overloaded situation and becoming a bottleneck knot of the whole line, which causes ship wrecks or caught-in-shoals, or serious traffic jams for many hours, sometimes for many days, causing great loss, probably up to billions of VND per day.

Besides, on Cho Gao Canal Line, the banks of Cho Gao Canal have collapsed for dozens of years under the effect of the currents and ship waves, with the encroaching speed about 2-3m per year; and on a section about 10km passing Quon Long and Binh Phan communes, there are 35 collapsed plots, some plots are 4m deep into the bank, making the line unstable.

Before this situation, the Government has planned to expand and upgrade the line from level III

to level II of internal waterway, with two way channel with the bottom width $B=0m$, the depth $H=4m$, 95% correlative to the ship running level of the sections Rach La, Cho Gao, Ky Hon: -1.45m, -1.30m, -1.10m, the minimum radius $R_{min}=500m$, with the works to mould, adjust and protect the banks, making a clear current, convenient for the ship to and fro and upgrading Cho Gao Bridge with the minimum space height is 9m, to ensure for the automatic ship 1000 tons with water-line 3.5m and the leading fleet including the tug boat and two barges 500 tons, 99.4m long, 16m wide, to and fro easily with the speed of 8km/h. The project includes:

- Dredging and expanding the cutting surface of the canal in combination with adjustment of the river; building embankments against collapsing; releasing the surface and resettling, investing to build the civil roads and the waterway rescue area.

- On the section from Ky Hon to Cho Gao, expanding to the southward bank, bending two harsh turns on Rach La; the bottom width for ship running $B=80m$, minimum radius $R_{min}=500m$, minimum length of the line between the two opposite directions curves $L_m=500m$, the

depth for ship running $H=4m$.

- Investing to build the embankments on the bank of Cho Gao Canal to prevent collapsing caused by ship waves and currents and protecting the public and civil works along the canal banks, making it match the scenery and surrounding environment.

- Building modern waterway rescue area including one waterway control center, the running house, the internal roads, a quay 30m long, the rescue training field, the supporting works; investing to build ships and boats and rescue equipments.

- Building civil roads which are about 22.65km long, divided into two sorts.

- Investing to newly build the marking buoy system to mark the line and ensure safety for the line along the 28km long line in accordance to the internal waterway regulations.

It is necessary and urgent to expand the canal section, though the investment capital of about VND 4,000 billions is not a small one. The project will be estimatedly started in 2011 and finished in 2014, owned by the Internal Waterway Management Board belonging to Internal Waterway Department, and consultants on design and research are the cooperation of leading consultants such as Postcoast, Tdi Gic, Britec, headed by Portcoast. The research and design tasks are urgently carried out by the consultants, including a mathematic model of the current and the changing of the canal in natural mood and when it is adjusted.

MATTERS THAT NEED TO BE SOLVED IN CHO GAO PROJECT

If it is improved, managed and used well, Cho Gao Canal will give good conditions to develop internal waterway transport as well as sea transport in Mekong Delta area, because this region has a dense waterway net with three national waterway lines: HCMC-Nam Can,



Thousands of means were jammed on the canal after the crash on May 17, 2008

HCMC-Kien Giang, and HCMC-Ha Tien through Dong Thap Muoi, together with the waterway system across from the West to the East to reach the sea, such as Tien River, Hau River through Quan Chanh Bo Canal, Kien Giang - Ca Mau line, Cai Lon River... with many river ports and sea ports; some of which can receive big ships with capacity 20,000DWT are being built, such as Can Tho, Cai Cui, Binh Minh, Long An (building)... After the Hau River and Soai Rap channel have been dredged, they will help to develop Mekong Delta's economy because the waterway transport in this region plays a key role, taking about 50-60% total transport amount.

To develop clear, safe and effective water traffic on the waterway system in Mekong Delta in general and Cho Gao Canal in particular, with the tight combination between seas transport and river transport, between the sea port system and river port system to gather and distribute cargo for import and

export, we surely need a modern running and exploitation system with many services, among which logistics services, a very necessary service for waterway transport, especially sea transport in the whole country, including Mekong Delta region, HCMC and the Southern Economic Main Point. Therefore, the establishing of the logistics centers in these regions is very necessary.

Particularly in Cho Gao Canal project, the matter of running waterway transport on the canal is not a simple one, due to the number of boats and ships to and fro this line can be much bigger than at present, and including so many kinds of means, with different sizes too; and the density can suddenly increase at some time, there are surely many new problems. Though the line is expanded and adjusted to give more conveniences to the ships and boats, without a good solution in running the means to and fro, the traffic jam on the canal is hardly to be completely overcome.

In Cho Gao Canal project, the following matters should be studied and solved to ensure the transport on the line going fast, safely and effectively:

1/ Design, expand, improve and upgrade the channel together with other works on the canal with stable technique to get effective economy, meeting proposed demands, which are to upgrade Cho Gao Canal according to the norm of internal waterway level II; dredge, expand and dig deeper the line, build the bank protection works with reasonable structure solutions, cut and adjust the sections which are so curved with reasonable plans; upgrade Cho Gao Bridge to ensure convenient traffic of the boats and ships, design and build the necessary supporting works defined in the project.

2/ Check more carefully and have timely supplements of the data in the forecast about the sources, amount and types of cargo; the source of and number of customers; number of each kind of means and capacity, the to and for directions of the means.

Hereabove are some matters concerning to Cho Gao Canal project, one important link in internal waterway transport in Mekong Delta region. We should think that, besides great investment for the improvement and upgrading of the line, it needs to have investment in management and the exploitation task to get effective results through modern services and technology in the area which is considered as the granary of the whole country. **TR**



Photo: PANDAW.COM