BUILDING
A NEW WATERWAY
TO HAU RIVER
ENLARGING THE
SOUTH'S WESTERN
REGION'S GATEWAY

The Prime Minister on December 27, 2009 gave the kick off signal to start work on the construction of a waterway to permit large ships to enter the Hau River. After 20 years' research work including numerous projects and participation of domestic and foreign consultants and scientists, a scheme was finally devised by Canada's engineering and construction firm SNC-Lavalin and Vietnam's PortCoast to dig a 'shortcut waterway' linking the existing Guan Chanh Bo canal to the sea, that was approved by the Government.

The new waterway permits fully-loaded 10,000dwt ships and less-loaded 20,000dwt ships to enter ports on the Hau River, satisfying the need to accommodate heavy-tonnage ships sailing the Hau River, and opening a new era for the entire Mekong Delta to be directly connected with the sea, thus achieving its global economic integration ambitions.

A paradox in a region criss-crossed with canals
The South's western region, or the Mekong River Delta, in the Mekong Greater sub-region with three sides bordering on the sea, is an ASEAN central location, which is very convenient for international trade. This is a populous and rich delta, a producer of agricultural and aquatic products for export, with a population accounting for over 20 per cent of the country's, contributing approximately 20 per cent to the country's GDP. Criss-crossed with canals and channels, the delta has been playing a very important role in the transportation of goods by water for hundreds of years.

According to a forecast, by 2020 the quantities of...
goods passing through the Mekong Delta will be about 54-74 million tonnes. On Under Vietnam's port system development master plan to 2020 and towards 2030 approved by the Prime Minister, many ports will be developed and constructed on the Hau River, such as Can Tho Port with Cai Cui, Hoang Dieu-Binh Thuy, Tra Noc-O Mon terminals, Tra Cu-Tra Vinh seaport, Dai Ngai seaport in Soc Trang, Nam Cai Cui-Hau Giang seaport, My Tho-An Giang seaport, and Lap Vo-Dong Thap seaport.

Admittedly, this region's need and potential for sea transport development is very great. However, it is paradoxical that, over many years, one of the major problems facing this region in terms of sea transport has been how to build a navigable waterway for heavy-tonnage ships to enter the Hau River. It is because the Dinh An estuary silts up constantly.

The Government every year spends largely on dredging the waterway to a depth sufficient for ships to sail the waterway but its navigability lasts only one-two months. At present, only ships of less than 5,000dwt can enter the Hau River via the Dinh An estuary, resulting in the quantity of goods passing through the Dinh An estuary accounting for less than 20 per cent of the Mekong Delta's total goods. About 70-80 per cent of the remaining goods must be carried by road to Ho Chi Minh City's port system, generating an additional cost of hundreds of millions of dollars in transport and warehousing charges per year.

In this context, a new waterway for 10,000dwt ships to enter Can Tho Port and other ports on the river is urgently needed.

Research
Since the 1980s, the Government has several times had the Dinh An estuary dredged and upgraded, but obtained poor results. From 1997, many well-known foreign consultancies were invited to cooperate with domestic firms to research and find a solution to the problem with attention paid to the upgrade of Dinh An or Tran De estuary to permit 5,000dwt plus ships to enter Can Tho Port. Major pieces of research were:

A study of how to upgrade the waterway from The Hau River estuary to Can Tho Port by Haeccon (Belgium) and domestic partners (1998-2000) including elements regarding natural conditions of hydrography, the tide, water currents, water salinity and turbidity to be used as a basis for assessing how alluvial deposits grow and how the structure of the estuary changes.

The Belgian consultants studied six projects to upgrade the waterway (five for Dinh An estuary and one for Tran De estuary). Haeccon suggested using a waterway with a depth of -4.7 m CD (a depth measured from the lowest level of water in this area) for 5,000dwt ships to cross over the estuary at high tide and adjustment of the main current must be done regularly to take advantage of the natural depth and dredging will take place at local areas where it is needed.
On the basis of the said pieces of research, the Ministry of Transport and Vietnam Maritime Bureau had the Dinh An waterway dredged many times with the largest volume of mud dredged up amounting to 1.45 million cubic metres (in 1983) and that of the subsequent years being 200,000-600,000 cubic metres. The result of dredging failed to meet expectations because the place silted up again one or two months after the dredging.

Breakthrough
Scientists have likened the Dinh An estuary to a “bowl of watery soup” to indicate the complicated developments of the main canal and the changes of the shoals at the estuary. The untamed behaviour of the canal is a headache to many managers and scientists for a long time. But scientists do not shrink from the challenging problems.

From 2002 to 2004, SNC Lavalin (Canada) and Haskoning (the Netherlands) and PortCoast (Vietnam), who inherited the results of previous research, re-assessed the possibility of reforming the Dinh An, Tran De canals and the Hau River, have bravely studied a new canal to leave the problematic Dinh An estuary for a new place that is not under the influence of alluvium.

Various pieces of research show that a project to use the Quan Chanh Bo canal and to dig a new canal (temporarily called Tra Vinh canal, or the shortcut canal) is a feasible plan in financial, socioeconomic, technical and environmental terms which is seen as a sustainable project that helps to minimize the risk of silting up. This select project allows opening a waterway for fully-loaded 10,000dwt ships and half-loaded 20,000dwt ships to enter and exit the Hau River at high tide all year round at a rate of twice a day.

This project, which has been approved by the Prime Minister via document No 123/Ttg-CN, dated January 20, 2007 and ratified by the Ministry of Transport under Decision No 3744/QD-BGTVT, dated November 11, 2007, comprises the following main items:

- The waterway will be 40 km long, of which a river section is 6km long, the Quan Chanh Bo canal section is 19 km long, the new shortcut canal, which is dug through the mainland, is 9 km long, and the sea section is 6km long...

The Vietnam Maritime Bureau earlier held many seminars to listen to famous domestic and foreign scientists and international consultancies’s opinions about the project. Leading domestic and foreign consultants chosen to provide advice on the project were PortCoast (Vietnam) in partnership with Japan’s Nippon Koei and subcontractor DHI -- Danish Hydraulics Institute, producer of the well-known software MIKE applied to sea and river hydraulic calculations.

After over a year work involving several rounds of hydrographic surveys and technical designs, the Ministry of Transport and the Tra Vinh provincial People’s Committee on December 27, 2009 officially started construction work on the project.

So, after nearly 20 years’ research fraught with challenges, the project “Waterway for heavy-tonnage ships to enter the Hau River” is now under way. A range of ports in the Can Tho area are looking forward to this project, and an array of electricity centre projects are waiting for the new waterway, and above all, the entire populous and rich Mekong Delta with a total volume of goods of about 25-30 million tonnes in the next decade is awaiting this project. The dream of a large gateway of the western part of the country’s South is about to come true.