

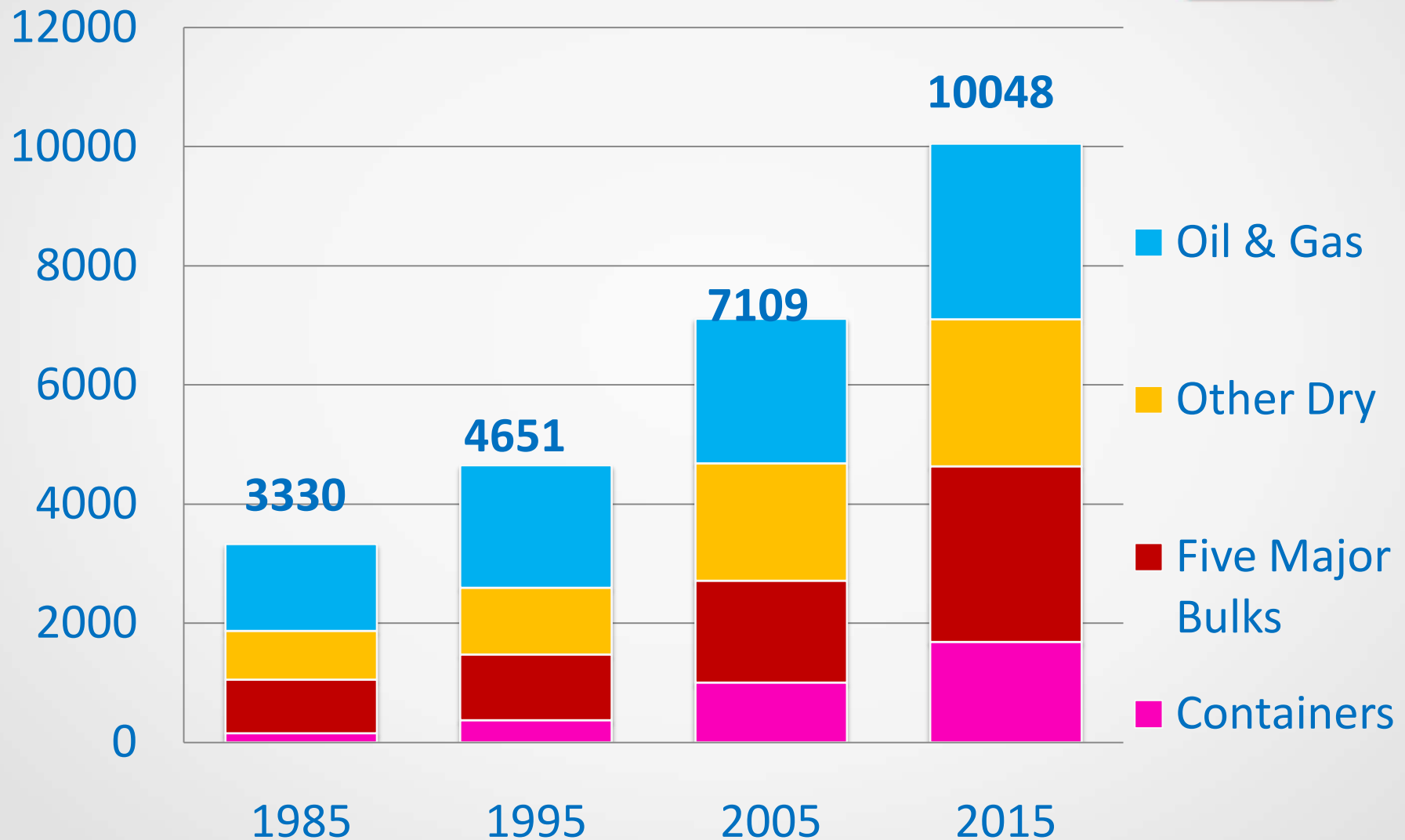


Cochin as a Bunker Destination- Prospects

Destination Cochin 2017

4th International Business Meet on Bunkering

World Seaborne Trade- Goods Loaded (MMT)



World Seaborne Trade

Volumes surpassed 10 Billion Tons in 2015

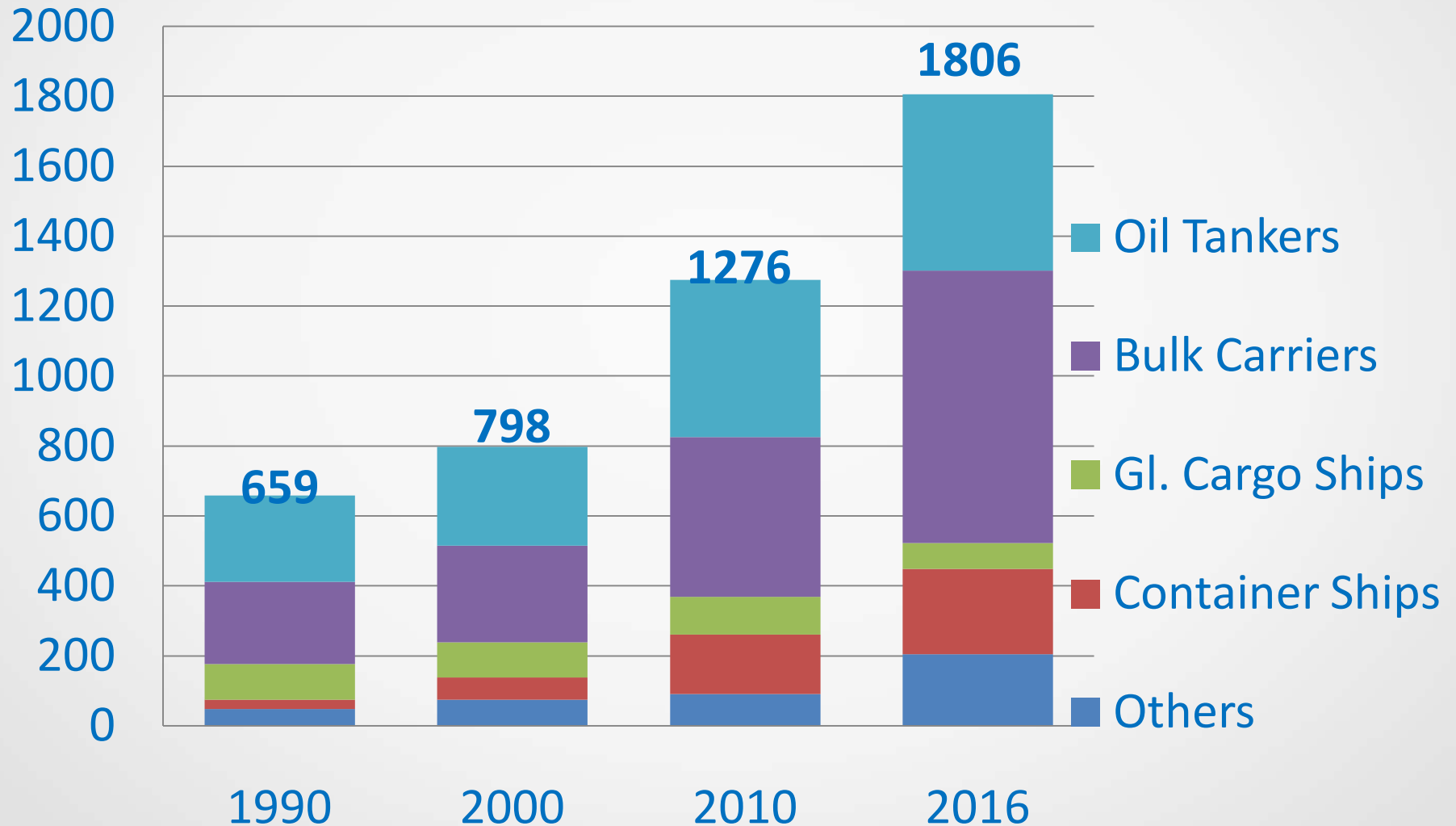
World GDP expanded by 2.5% in 2015; Global Trade increased by only 1.4%

Developments in World Seaborne Trade- UNCTAD

- Slowdown in China
- Growing South–South trade
- One Belt, One Road Initiative
- Partnership for Quality Infrastructure
- Expanded Panama Canal and Suez Canal
- Fourth Industrial Revolution
- e-commerce

World Fleet over the Years – Million DWT

90,917 Sea going Commercial Ships in 2016 – 1806 M DWT



World Fleet

World fleet in 2016 - 1.81 Billion DWT; 3.5% growth over 2015

Lowest growth rate since 2003, yet still higher than the 2.1% growth in demand, leading to a continued situation of global overcapacity.

India- Shipping Cargo Traffic (MMT)

National Perspective Plan, Sagarmala

Commodity	2014	2025	
		Base	Optimistic
EXIM	820	1,511	1671
Domestic shipping	150	649	829
Total	970	2,160	2,500

Bunker Sales

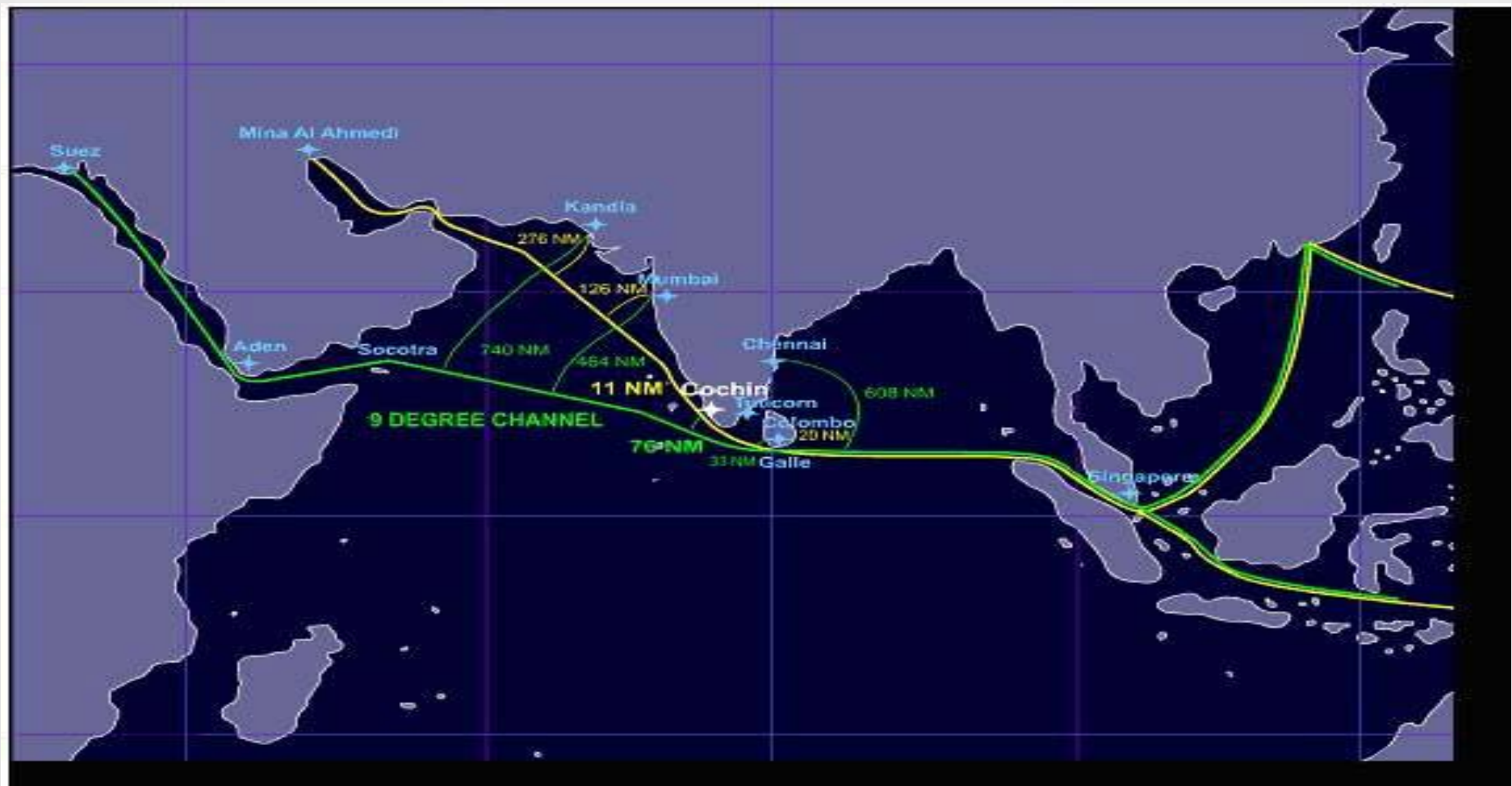
Global Bunker Sales- about 150 MMT

- Singapore- 50 MMT
- Fujairah- 25 MMT
- Rotterdam- 11 MMT
- Hong Kong- 8 MMT
- Antwerp- 7 MMT

India- 1.2 MMT

Cochin- Vision to be a Major Bunker Destination

Geo-strategic Locational Advantage of sitting on the international sea routes



Cochin Port- Profile

- Established in 1936; A Major Port since 1964
- Well established systems and procedures on cargo and vessel clearance

Cargo Profile 2016-17; Throughput- 25.01 MMT

Commodity	% Volume
Liquid Cargo (POL)	67
Containers	27
Dry Cargo	6

Cochin Port- Ecosystem

- Operates in an ERP Platform
- Cargo and Logistics Management System (CALMS) under ERP with online documentation
- CALMS integrated with ICEGATE through PCS
- Cargo related billing automated through integration of the Business Process with SAP
- Cargo accounting, receipt and delivery through CALMS

Cochin- Bunker Promotion Facilitation

- Single Window System of Clearances from the Port 24 X 7
- Cooperative Customs regime
- Bunkering at OPL
- Favourable VAT regime; VAT of 0.5% for bunkers to foreign ships and 5% to coastal vessels
- Permits floating storage, of more than one shipment at a time, for Custom cargo
- Bunkering during cargo operations, subject to class restrictions; saving Time
- Bunkering permitted at Night

Cochin- Bunker Volumes over the Years (MT)

Bunker Volumes 2012-2016; CAGR- 19%

Year	Foreign	Coastal	Total	Growth- YoY (%)
2012-13	49,656	65,154	1,14,810	22.87
2013-14	61,073	74,436	1,35,509	18.03
2014-15	92,115	60,012	1,52,127	12.26
2015-16	1,61,112	65,774	2,26,886	49.14
2016-17	2,09,038	67,138	2,76,176	21.72

Cochin- Growing OPL Bunkering (MT)

Year	Berth	OPL	Total
2012-13	87,345	27,465	1,14,810
2013-14	82,885	52,624	1,35,509
2014-15	87,627	64,500	1,52,127
2015-16	89,060	1,37,826	2,26,886
2016-17	1,20,836	1,55,340	2,76,176

Cochin- Some of the Biggest Supplies

HPCL bagged a single stem order of 3,415 MT at Cochin OPL on 07.10.2015

MXB delivered the Bunker stem of 3,240 MT at Cochin OPL on 29.02.2016

Cochin- Success Factors in Bunkering

- Presence of well established, reputed suppliers- Public Sector Oil Majors
- Quality and Quantity ensured; very few claims
- No history of Cappuccino Effect
- Surveyors witnessing Shore Tanks; emphasis on quality
- 24/7/365 OPL Bunkers; Sea not very rough even in Monsoons
- OPL Bunkers- Very less waiting period; within 1 hr of ship dropping anchor

Cochin as a Bunker Destination- Advantages

- Product Capacity/ Availability at any point– 45,000 MT
- Barge Capacity- 4,650 MT; 3,000 (MS) & 1650 (RSV/ IV)
MS Barges operate throughout the year; Others only in Non-Monsoon period
- BPCL-KR operating a 15.5 MMTPA capacity Refinery
- Commissioning of MULT in Feb, 2018
- PLL operating a 5 MMTPA capacity LNG Terminal;
MARPOL requiring 0.5% Sulphur Cap by 2020, prompting ships to switch over to MGO/ LNG

Cochin- Challenges in Bunker Supply

- Restrictions from the Central Excise on Floating Storage
 - Adverse impact on Oil Majors owning Products
 - Negates flexibility in supplies
- **Barge treated as extension of tank at ports like Singapore, Fujairah and Colombo**
- Limited number of MS class Barges; Cochin, with 2 Monsoons, need more MS class Barges
- Low pumping rates
- Limited Barge filling points
- Providing dedicated Parking Space for Barges
- Relatively lower earnings vis-à-vis cargo operations-
Questions of Priority

Multi User Liquid Terminal (MULT)

Capacity- 4.10 MMTPA; Commissioning Feb, 2018



MULT- Features

Vessel Parameters

- LOA- 230 m; Beam- 37 m; Draft- 13 m
- DWT- 80,000

- Jetty designed to install 8 Nos. MLAs (2 for LPG and 6 for Non-LPG cargo)
- Approach Trestle to Jetty under construction with a Pipeline Trestle to carry 10 Product Lines including 2 LPG lines and other services and utility lines

MULT- Features

- Fire Fighting System as per OISD- 156; Hydrants, Monitors, Spray system, Smoke & Gas Detectors and Fire Extinguishers
- Electrical System with Instrumentation Controls
- Common user Manifold for all Jetty pipelines
- Communication system
- Two Lane Approach Road

MULT Barge Jetty- Features

- 100 m long and 10 m wide Jetty
- Seaside- Barges up to 2,000 DWT; Lee side- up to 500 DWT; structurally designed to berth vessels up to 5,000 DWT
- 2 Nos. 300 mm dia. pipelines (1 each for White Oil and Black Oil) along with pig launchers
- 80 m long Pipeline Trestle to carry 8 Product lines and other services and utility lines

MULT Barge Jetty- Features

- Common user Manifold for all Bunkers and POL pipelines with Canopy
- Pig Receivers at nearby manifold area in onshore portion
- Fire Fighting System as per OISD- 156
- Electrical System with Instrumentation Controls
- Communication system

MULT- Potential Investments

Locational advantages ensuring fast supplies

- Proximity to Outer Roads
- Potentially high Pumping Rates
- Main Jetty- 161 days a year prioritized for LPG handling by IOC; 204 days a year available for POL handling
- Barge Jetty- Available throughout the year for bunker operations
- Land of 9.72 ha area available at MULT for establishing Tank Farms



Thank You for Your Attention