

2nd Annual Offshore Support Vessels Asia-Pacific Conference



Evaluating the Risks and Rewards of Entering the India Offshore Sector

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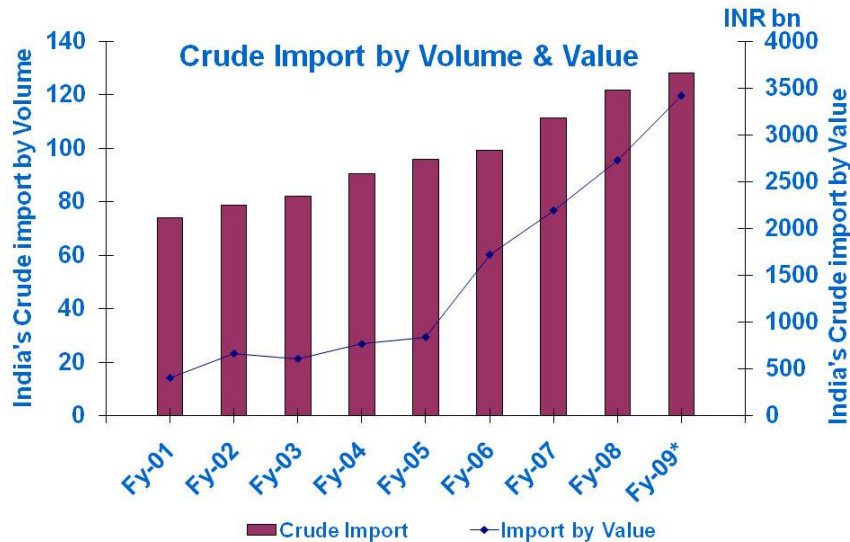
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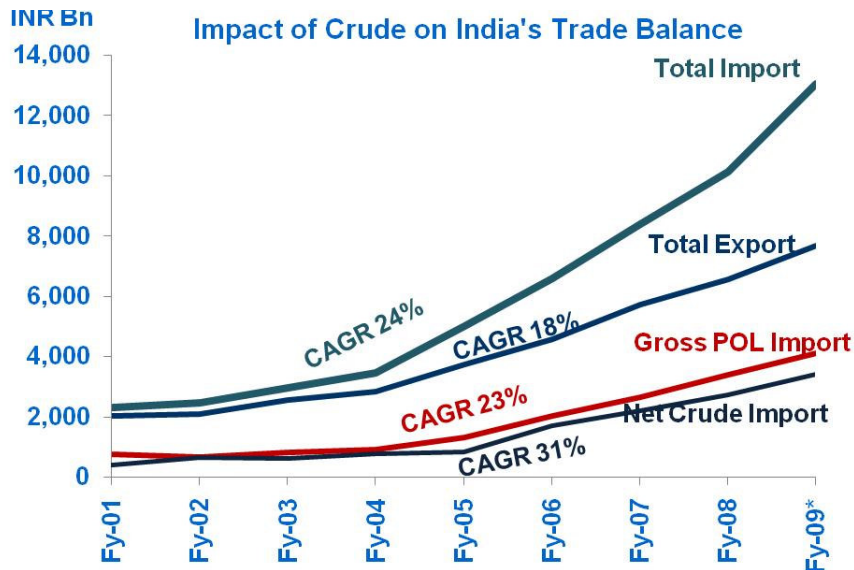
International Ships

Upcoming Supply of Offshore Vessels

Macroeconomic Scenario



- India is 5th largest importer of Crude oil,
- Fy-09, India imported close to 83% of its annual crude requirement
- Since Fy-01, Crude import increased by 70%, but Crude import bill increased by 8.5 times
- Since Fy-05, Crude import increased by 35%, but Crude import bill increased by 4 times



- Crude import at high prices puts heavy drainage of foreign exchange
- Share of Gross POL import to total export is 54%
- Share of Net Crude import to total export is 44%
- Crude is single largest import commodity with 26% to total import

Source : Ministry of Petroleum & Natural Gas

Growth Prospects - India



- With a Population of 1.3 billion, it is largest democracy
- Worlds 4th largest economy in PPP terms
- GDP growth between 7% to 9%
- As per BRIC report, GDP to reach US\$ 2 trillion by 2020 and US\$ 10 trillion by 2050

- Increase in domestic income and saving
 - ✓ Per Capita Net National Product rose from Rs 16,000 in Fy-01 to Rs 25,000 in Fy-09
 - ✓ Domestic saving rose from 24% in Fy-01 to 37% in Fy-09
 - ✓ More money with households to acquire new amenities for luxury

- Cost effective supply (Some examples)
 - ✓ Domestic petroleum sales is subsidized, not much affected by Crude price fluctuations
 - ✓ Tata Motors developed worlds cheapest car, distributing for US\$ 2000/- (i.e INR 100,000/-)
 - ✓ More companies to join this league

India would need more crude for domestic requirement leading to more thrust from government on exploration

India Hydrocarbon Vision – 2025



- To assure *energy* security by achieving self-reliance through increased indigenous production and investment in equity oil abroad.
- To enhance *quality* of life by progressively improving product standards to ensure a cleaner and greener India.
- To develop hydrocarbon sector as a globally competitive industry which could be benchmarked against the best in the world through technology upgradation and capacity building in all facets of the industry.
- To have a free market and promote healthy competition among players and improve the customer service.
- To ensure oil security for the country keeping in view strategic and defence considerations.

Offshore E&P – Key focus in India



Description	Offshore		Onland	Total	Offshore % Total	Year	Area (sq km)
	Deep	Shallow					
NELP-I	7	13	1	24	83%	2000	168,340
NELP-II	7	7	4	23	61%	2001	189,503
NELP-III	9	6	8	23	65%	2003	204,670
NELP-IV	10	--	10	20	50%	2004	192,810
NELP-V	6	2	12	20	40%	2005	109,210
NELP-VI	24	6	25	55	55%	2007	352,191
NELP-VII	19	9	29	57	49%	2008	171,043
NELP-VIII	24	28	18	70	74%	2009	163,535

Source : DGH

- Has a sedimentary area of 3.14 million Sq. km (4% of worlds sedimentary area)
- 26 sedimentary basins, exploration initiated in 15
- A majority of Indian hydrocarbon reserves are located in the offshore region
- The spotlight in India has been shifting towards intensification of exploration in the offshore region
- The concentrated offshore operation initiatives have been creating additional demand for drilling services

India opens large opportunities for services providers in offshore oil & gas sector

E & P investment - ONGC



- X Plan : Year 2002 to 2007
- XI Plan : Year 2007 to 2012

Source : ONGC

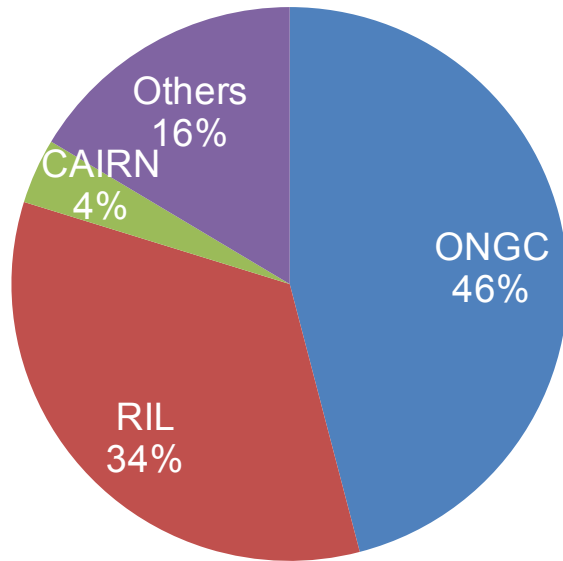
- Due to increase in the asset price and charter rates, the large investment proposed by ONGC have not resulted in proportional increase in assets hiring, still ONGC fleet of chartered assets has increased in recent years

Other E&P companies such as Reliance, GSPC, CAIRN, HOEC, ENI, etc..... have also increased their investment, increasing more avenues for service providers

Opportunities for Service Providers- India



Distribution of PEL Area

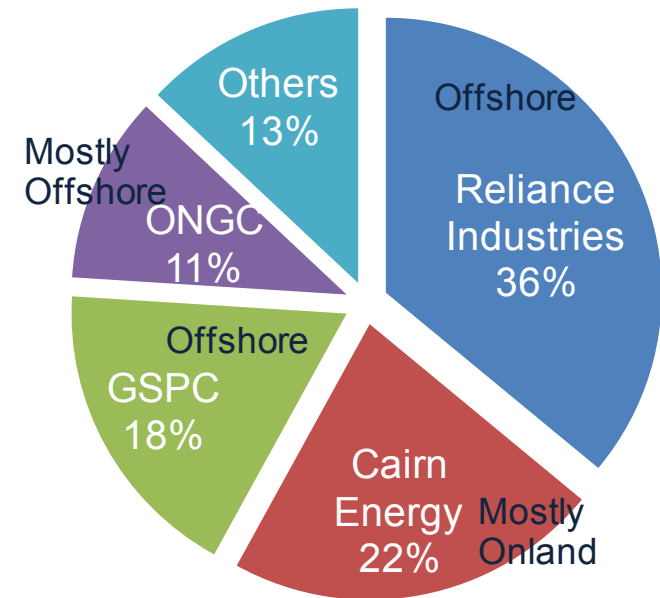


Source : DGH

Others PEL Area

- GSPC
- HOEC
- ENO
- Niko Resources
- Petrogas
- Santos
- Focus
- etc

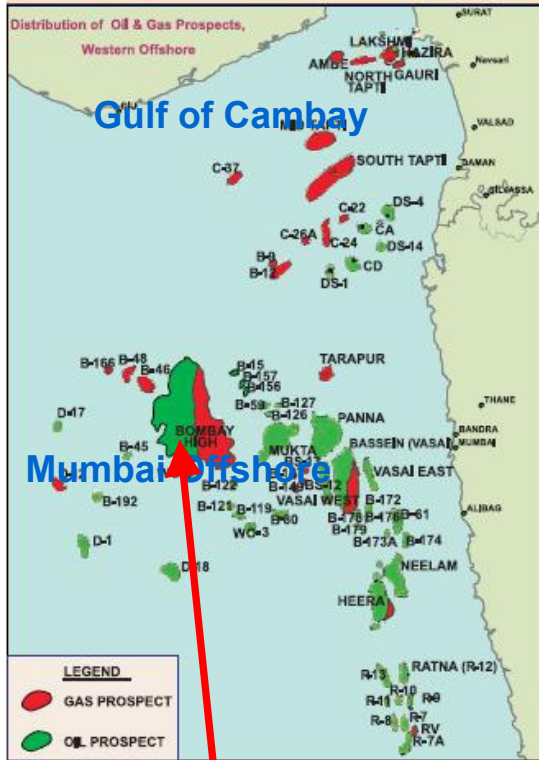
Discoveries by Company



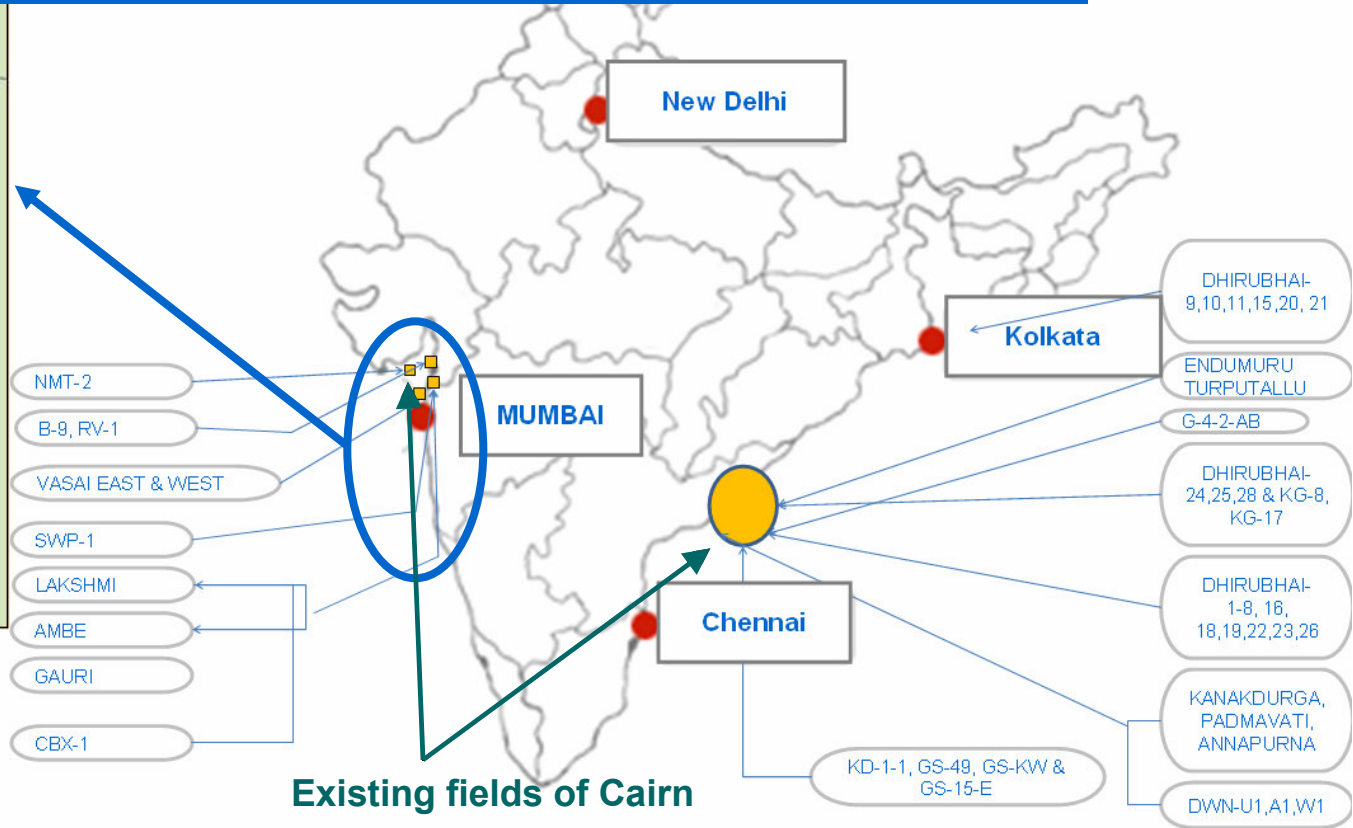
- ONGC, Reliance and GSPC have found reserves in Offshore segment
- Cairn operates two Offshore production fields in Rava and Gulf of Cambay, large discoveries onland

ONGC, Reliance and GSPC would have large requirement for marine assets

Opportunities for Service Providers - India



Proposed development projects and ongoing redevelopment projects in Offshore Oil & Gas Sector



Redevelopment of Mumbai Offshore by ONGC

Source : DGH

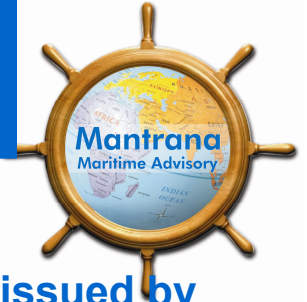
Substantial amount of expenditure of Offshore oil & gas companies is earnings for service providers such as drilling and supply vessels company

India's E&P companies



- **ONGC is the largest Exploration & Production company in India with maximum budget**
 - ✓ It is the largest producer of Offshore Oil & Gas in India
 - ✓ It is the most aggressive in exploration for new blocks and redevelopment of depleting fields
 - ✓ It employs the maximum number of rigs and logistics support for Offshore E&P in India
 - ✓ It mostly hires rigs and vessels on a long term time charter ranging between 3 yrs to 5 yrs
 - ✓ ONGC also awards drilling and construction projects on a turnkey basis, hence service providers have opportunities to find employment with companies serving ONGC
- **Reliance Industries would be the 2nd largest E&P company in India**
 - ✓ Have discovered one of the largest offshore gas field in East Coast of India
 - ✓ Hires vessels on long term and short term charters
 - ✓ Aker Solutions is developing its deepwater field on the East coast of India, Bechtel has undertaken project management consultancy
- **There are dozens of other companies such as CAIRN, GSPC, etc looking for offshore assets such as rigs, vessels etc**

Cabotage Law



Cabotage law for coastal shipping in India is quite flexible, It is a guidelines issued by Director General of Shipping (regulatory body)

It evaluates ships on the basis of their flag of registration

An international company with an Indian flagged ship is given preference over an Indian company registered out of India with a foreign flagged ship

If an Indian flagged vessel is available for Charter, it has to be given first right of refusal

In a competitive bidding, if the foreign flagged ship is lowest (L1) and Indian Flagged ship is 2nd lowest (L2) with a price difference of upto 10%. Indian flagged ship is asked to bring down its charter rate to match price quoted by foreign flagged ship to win an order

Process of hiring a ship in Indian Coastal waters

Company has to float an enquiry to Indian National Ship Owner's association (INSA) with the specification of the prospective vessel specification intended to be chartered

In case of unavailability of vessel, INSA gives a No Objection Certificate (NOC) allowing Charter hire of foreign flagged vessel

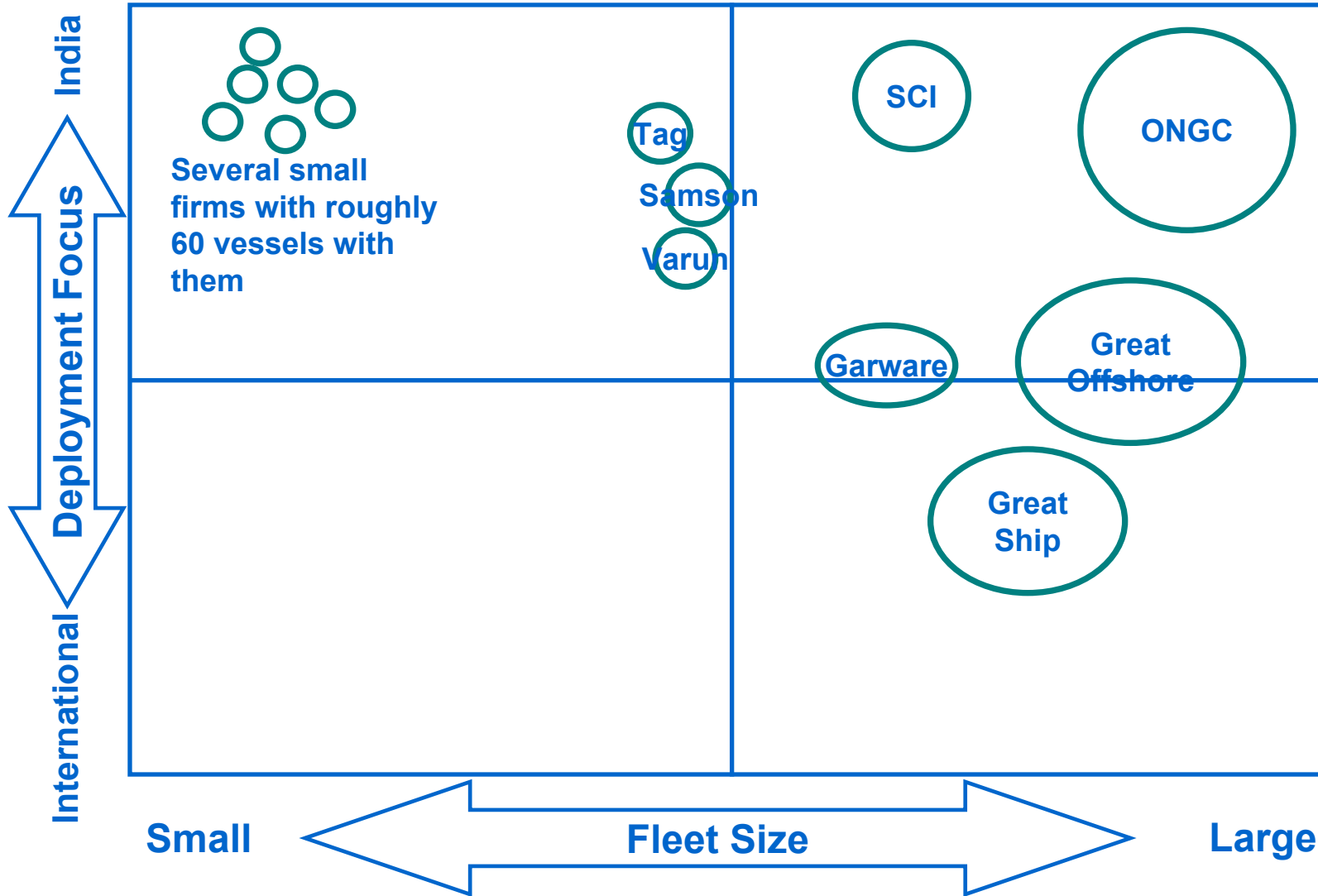
Other approvals to work in Indian waters



Following are some of the critical clearances required to operate in Indian coastal waters

- Ministry of Defence
- Ministry of Home Affairs
- Esseciality Certificate
- Special Period License
- Naval Security Clearance

Supply Scenario – Indian Flagged Ships



Supply Scenario – Indian Flagged Ships



ONGC

- ONGC has a fleet of 32 offshore vessels for its captive use
- All the vessels were built in 80's
- Management of vessels chartered to 3rd party, poorly maintained
- Company intends to replace ageing fleet in phased manner, placed orders for 12 OSV

Great Offshore

- Great offshore is the largest integrated offshore logistics service provider in India
- A majority of their ships chartered in India with ONGC
- Some of its ships are on spot charter in international waters

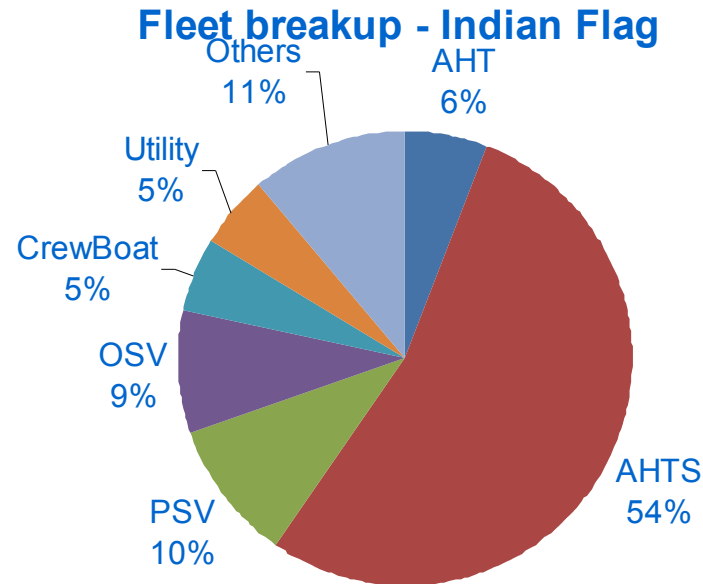
Shipping Corporation

- Shipping Corporation is a PSU owning 10 Offshore Vessels and managing Offshore Vessels owned by ONGC
- Intends to replace its fleet, ordered 6 at Bharati shipyard and Cochin shipyard in India
- May receive charter contracts from ONGC on Nomination basis

Greatship India

- Aggressive fleet expansion, had committed more than US\$ 600 mn for offshore assets few years back
- Ongoing investment US\$ 340 mn

Supply Scenario – Indian Flagged Ships



Indian Fleet dominated by AHTSV

Gradual acquisition and hiring of PSV, which started in early 2000. Trend likely to continue

Indian flagged PSV have young fleet

Fleet acquisition dominated in AHTS, PSV and MSV segment

AHT has small fleet, old fleet and has not been ordered by Indian companies in last decade

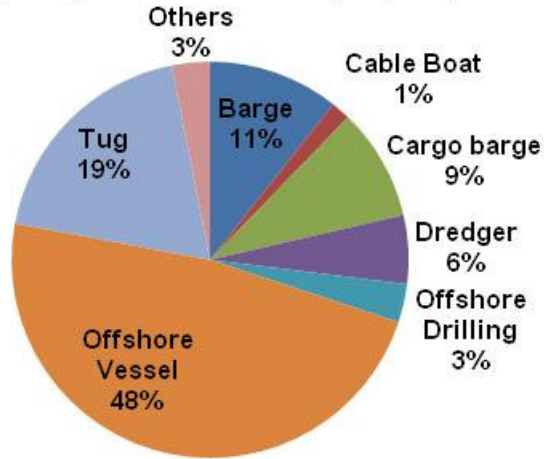
Ships in Crewboat, Utility boat are owned by smaller companies, mostly older fleet

Source: Compiled by Mantrana

Supply Scenario – Foreign Flagged Ships



Foreign Flag Vessels lised (No) in Fy-09



Type/Age (Yrs)	0 -- 5	6 -- 10	11 -- 15	16 -- 20	21 -- 25	> 26	Total
AHT	24	2	4	1	3	10	44
AHTSV	10	1	2	0	0	5	18
MSV	2	0	2	0	0	2	6
OSV	30	8	0	2	9	19	68
Survey	5	5	3	5	5	11	34
Other	16	6	8	6	5	18	59
Total	87	22	19	14	22	65	229

Source: Compiled by Mantrana

Offshore vessels dominate list of foreign flagged ships in Indian coastal waters

Anchor Handlers & OSV dominate the offshore ships deployed in India

Young fleet is chartered for deployment in environmentally harsh conditions

Older fleet have less charter rates, they are preferred in the fair weather season

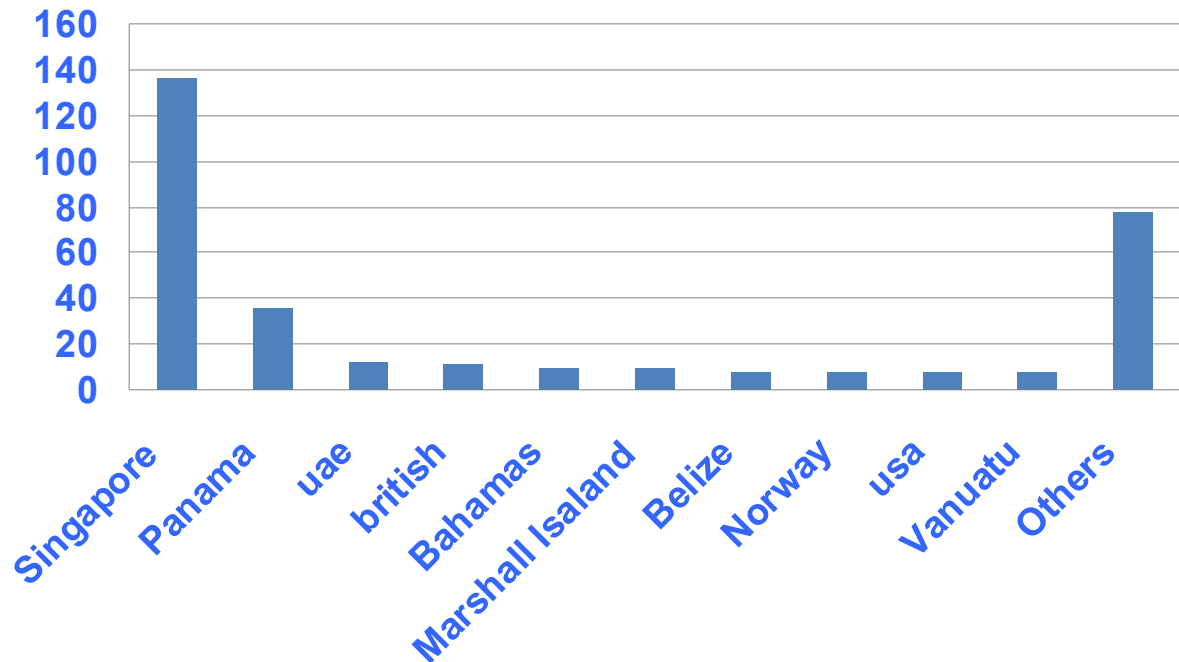
Supply Scenario – Foreign Flagged Ships



Owners of Foreign Flagged OSV

- Tidewater Marine
- Britoil Offshore
- Eastern Navigation
- Bourbon Offshore
- Posh Semco
- SBS Marine
- Van Oord
- Miclyn Express Off.
- Pacific Crest
- Posh Maritime
- Strato Maritime
- Swiber Holdings
- Swire Pacific
- etc

Flagwise Liscence Issued during Fy - 09



Source: Compiled by Mantrana

Future Supply of Ships in India



		2010			2011				2012				Total	
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Garware Offshore	MSV			1										1
Great Offshore	MSV		1											1
GreatShip (India)	AHTS						1	1						2
	MSV	1	1	1	1									4
	PSV		1	1	1									3
ONGC	AHTS				1	1	1	1		2	2	2	2	12
Samson Maritime	PSV			1	1	1								3
TAG Offshore	AHTS	1												1
Shipping Corporation	AHTS			1	1	1	1	1	1					6
Total		2	3	5	5	3	3	3	3	3	2	2	2	33

- Above list excludes ships built by shipyards for themselves
- Garware Offshore 1 MSV ordered at Havyard
- MSV of Great Offshore is committed to ONGC on long term charter
- Greatship (India) limited has committed a Capital investment of US\$ 365 for ongoing fleet expansion
 - A new company with young fleet, subsidiary of India's largest shipping company in private sector
- Samson Maritime has 3 ships
- Tag Offshore is developing its fleet focusing opportunities in India
- ONGC ships are managed by Shipping Corporation, would be deployed in India for ONGC project
- Shipping Corporation would deploy all its ships in India, may be on ONGC projects

About Mantrana



- **Undertakes research & consultancy on the Indian Maritime Sector**
- **Undertakes economic advisory on the following maritime segments**
 - √ **Offshore Drilling & Logistics Sector**
 - √ **Shipbuilding**
 - √ **Shipping**
 - √ **Ports & Logistics**

- **Following are key services provided by Mantrana Team**
 - √ **Market Study**
 - √ **Project Feasibility Study**
 - √ **Business Plan**
 - √ **Bid Advisory**
 - √ **Due Diligence for investment**



Thank you for your Attention

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