

INDIA'S MARITIME & COASTAL SECURITY CHALLENGES



COMMODORE UDAI RAO (RETD)

FORMER PRINCIPAL DIRECTOR NAVAL INTELLIGENCE(PDNI)

FORMER DIRECTOR CABINET SECRETARIAT

FORMER DIPLOMAT

PREVIEW

- MARITIME SECURITY
- COASTAL SECURITY
- THREATS
- VULNERABILITIES
- PROTECTION MEASURES
- WAY AHEAD

BLUE PLANET



BLUE PLANET

- OCEANS COVER OVER 70% OF THE EARTH'S SURFACE
- LESS THAN 5% OF UNDER WATER DOMAIN

EXPLORED

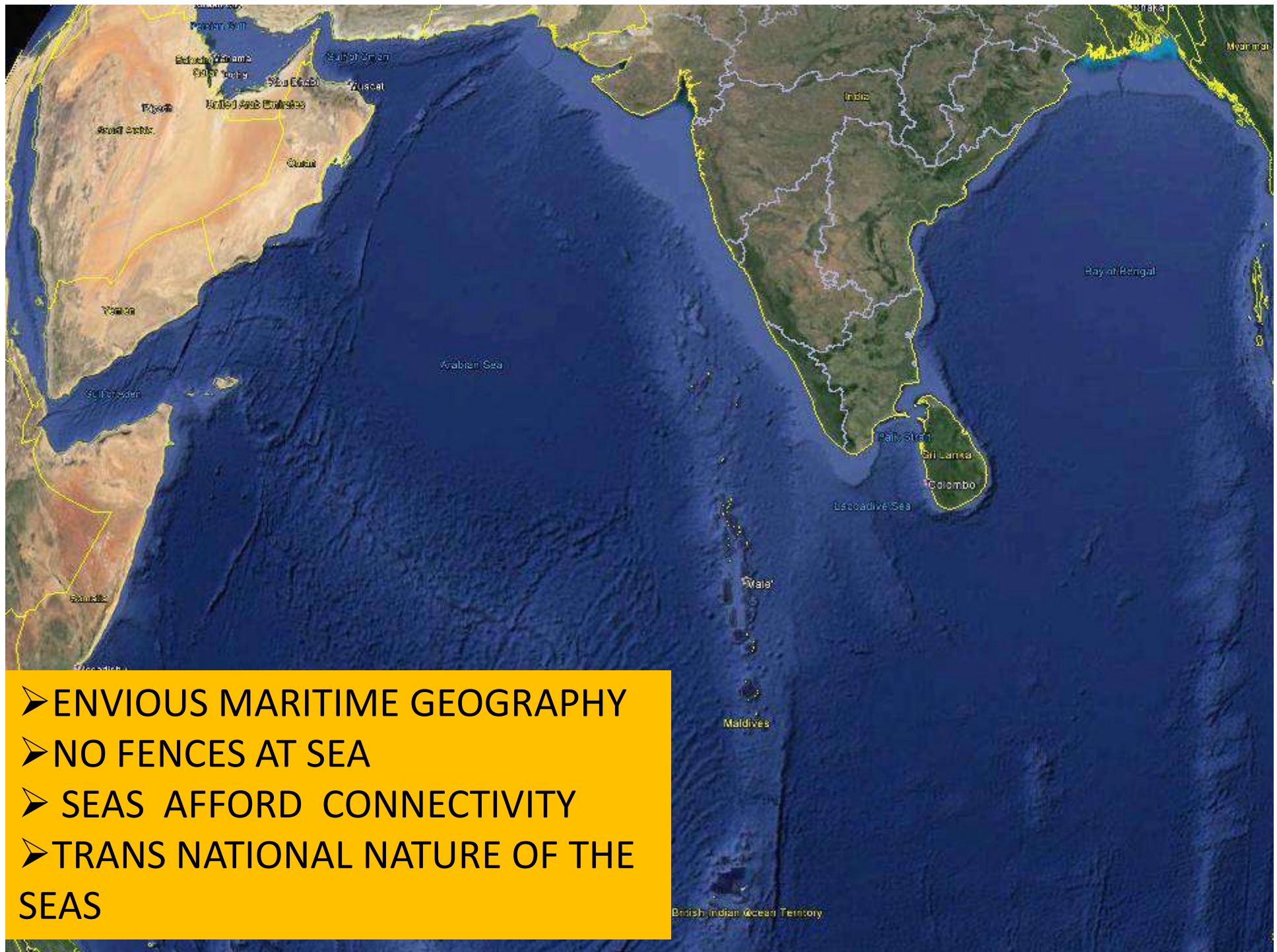
- REMOTE AND AMORPHOUS
- STAFF, EQUIPMENT, BOATS FOR MARINE POLICING

CAN NEVER BE ENOUGH

- LACK OF JURISDICTION ON THE HIGH SEAS
- COMPLICATES MARITIME OPS AND MARITIME LAW

- **INDIA – HISTORICALLY ALWAYS A MARITIME NATION**
- **RIG VEDA -- “JHALAM EVA YASYA BHALAM EVA THASYA”**
- **HE WHO COMMANDS THE SEA IS ALL POWERFUL.**





- ENVIOUS MARITIME GEOGRAPHY
- NO FENCES AT SEA
- SEAS AFFORD CONNECTIVITY
- TRANS NATIONAL NATURE OF THE SEAS





SEA LINES OF COMMUNICATION (SLOCs)



- ✓ COAST LINE -7516 KM
- ✓ 9 MARITIME STATES/ 4 U/Ts
- ✓ 12 MAJOR AND 200 INTERMEDIATE & MINOR PORTS
- ✓ ISLAND TERRITORIES-1197
- ✓ EEZ-2.3 MILLION SQ KM

BLUE ASSETS





MARITIME SECURITY

- WAR FIGHTING -NAVY AND COAST GUARD
- NUCLEAR CAPABILITY
- BUILDING OUR OWN SHIPS AND EQUIPMENT-
ATMANIRBAR
- PORTS & SHIPPING
- TRADE AND COMMERCE -95% BY VOLUME AND
72% BY VALUE GOES BY SEA
- PROTECTION OF MERCHANT SHIPS FROM PIRACY

MARITIME SECURITY

➤ PROTECTION OF ENERGY SHIPMENTS -STRATEGIC CARGO

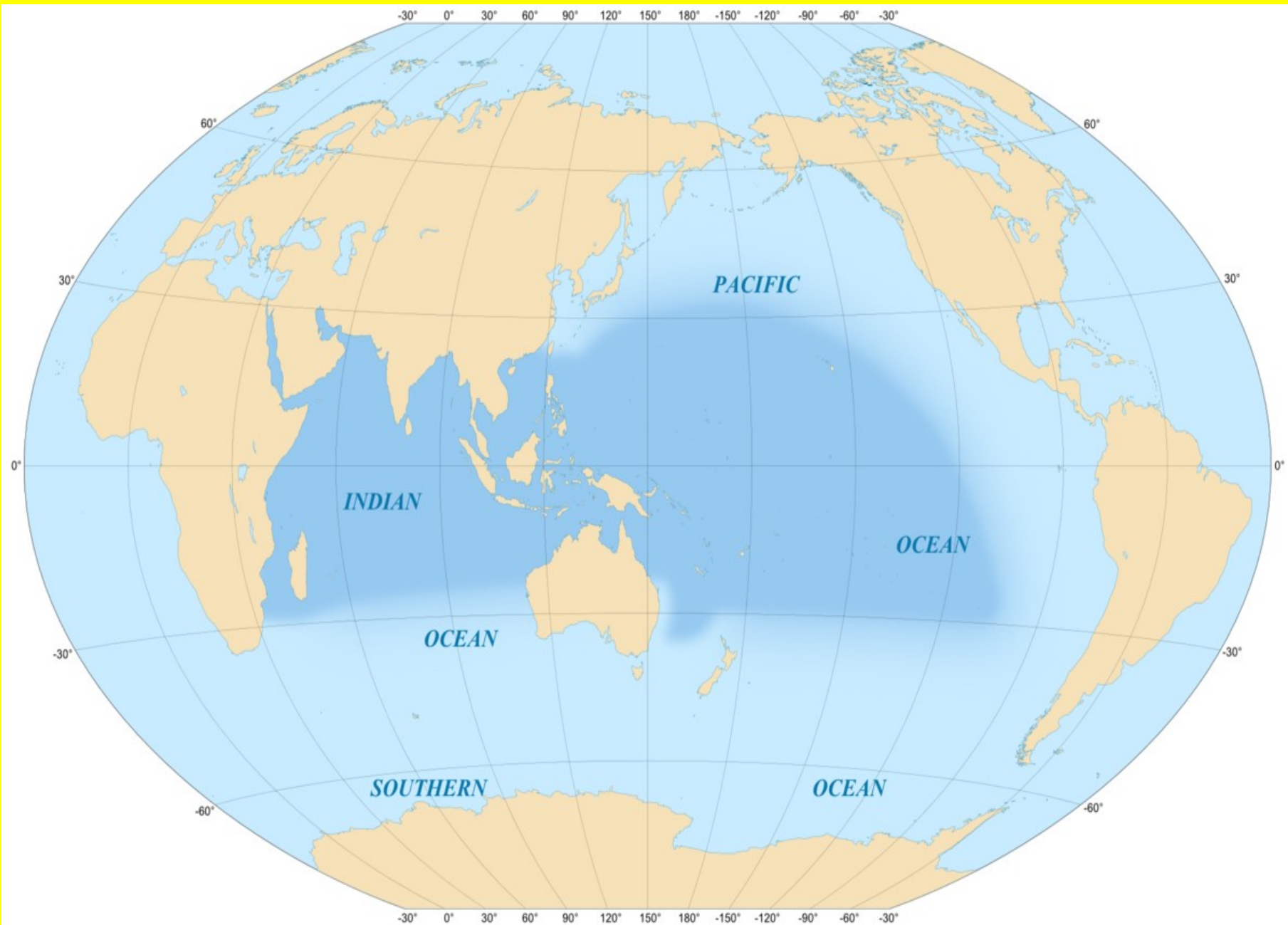
➤ PREVENTING ENVIRONMENTAL DISASTERS –OIL SPILLAGE

➤ RESOURCE PROTECTION – FISHERIES ,CRUDE ,SEA BED MINING MINERALS etc

➤ PROTECTION OF MARINE INFRASTRUCTURE – BOMBAY HIGH

➤ PROTECTION OF FISHERMEN FROM PAK MARITIME SECURITY AGENCY (MSA)OR SRI LANKAN NAVY

INDO –PACIFIC CONCEPT



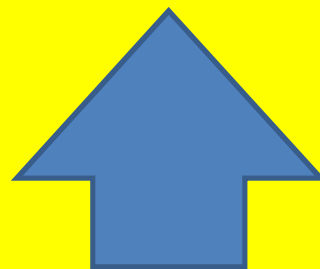
RECENT MARITIME INITIATIVES

- **SAGAR – SECURITY AND GROWTH FOR ALL IN THE REGION**
- **‘LOOK EAST’ TO ‘ACT EAST’ POLICY**
- **INDO- PACIFIC POLICY**
- **QUAD – INDIA ,US ,JAPAN , AUSTRALIA**

COASTAL SECURITY

COASTAL SECURITY

NATIONAL SECURITY



MARITIME SECURITY

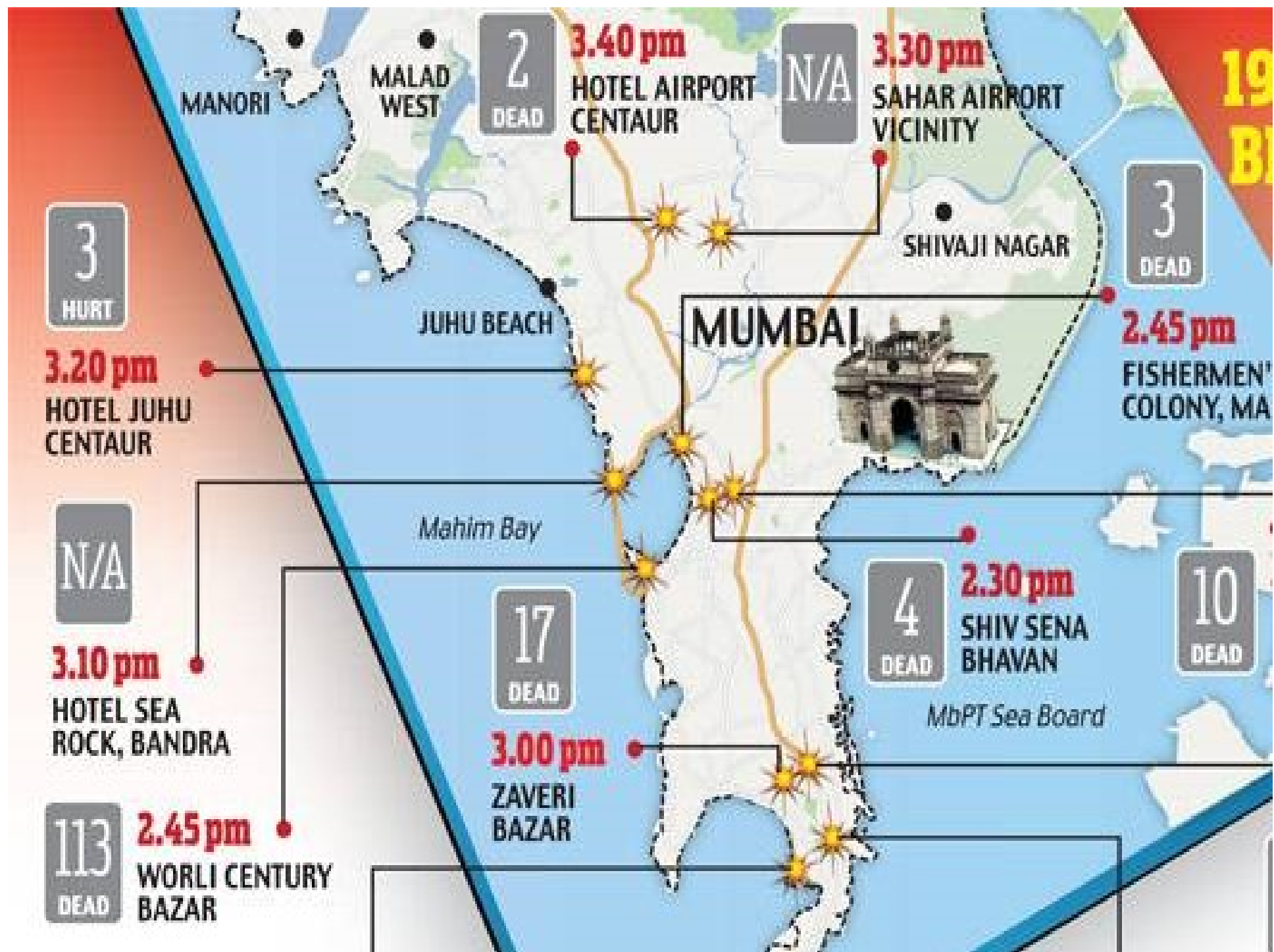


COASTAL SECURITY

COASTAL SECURITY

SUBSET OF **MARITIME SECURITY** ,BORDER MANAGEMENT , & **INTERNAL SECURITY**

- PROTECTION OF OUR COASTS AGAINST ACTIVITIES OF NON –STATE ACTORS :
 - ❖ SECURITY OF VALUABLE COASTAL ASSETS & INFRASTRUCTURE
 - ❖ PORT SECURITY
 - ❖ PROTECTION OF OFF SHORE OIL& GAS INFRASTRUCTURE
 - ❖ SECURITY OF ISLAND TERRITORIES
- IMPROVING COASTAL SECURITY - MENTIONED IN BJP MANIFESTO 2019



KARGIL 1999





26/11



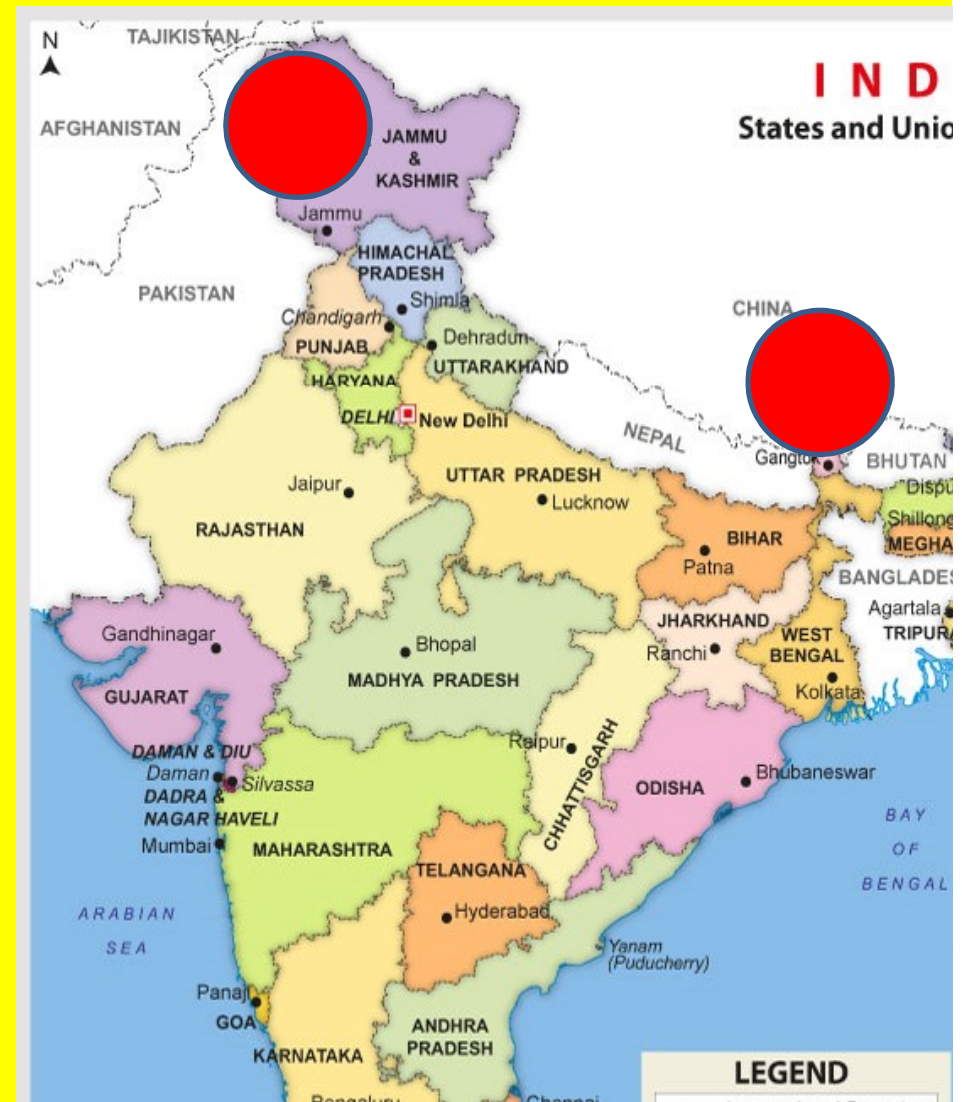
GEMINI



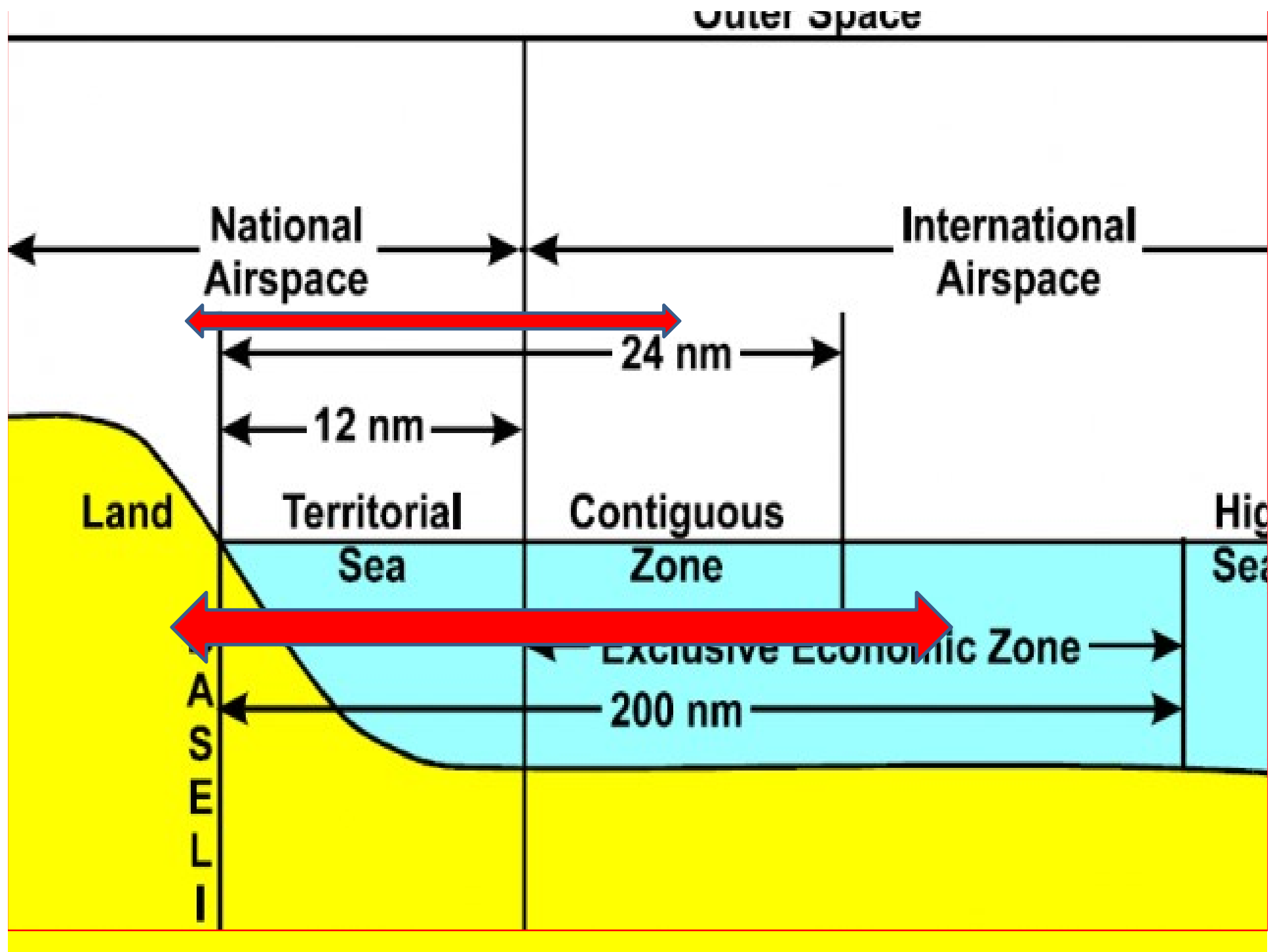
KUBER

SECURITY ESTABLISHMENT PREOCCUPIED WITH J& K, LADAKH AND NE

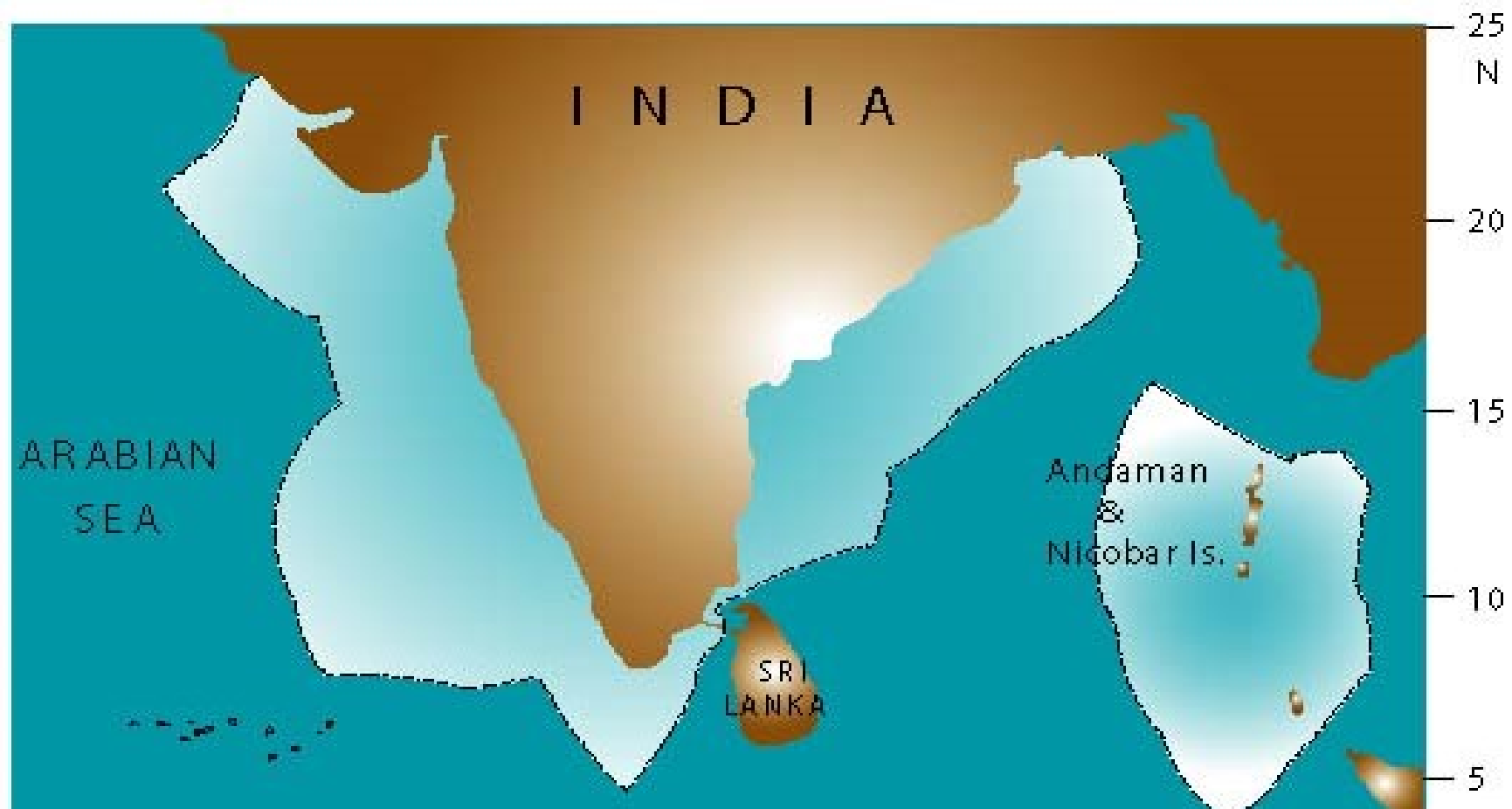
- ARMY & SECURITY FORCES ON HIGH ALERT
- BORDER FENCING
- 7516 KM COASTLINE RELATIVELY EASIER TO BREACH



EXCLUSIVE ECONOMIC ZONE (EEZ)



INDIAN EEZ



- PARALLEL INDIA IN THE WATER
- EXTENSION OF EEZ FROM 200-350 NM IN THE OFFING
- CENTRAL BUSINESS DISTRICT AT SEA

EEZ-BUZZING WITH ECONOMIC ACTIVITY

- MERCHANT SHIPS
 - NAVAL & COAST GUARD SHIPS
 - FISHING VESSELS
 - DHOWS
 - EXTRA-REGIONAL FORCES
 - RECREATIONAL AND PLEASURE CRAFT
 - OTHER SPECIALIZED VESSELS -.....
-
- **OIL & GAS EXPLORATION & PRODUCTION**
 - VARIOUS TYPES OF RIGS
 - OFF SHORE SUPPORT VESSELS
 - SEISMIC SURVEY VESSELS



OVER 120,000 MERCHANT VESSELS PASS THROUGH INDIAN OCEAN IN A YEAR

NAVAL SHIPS DEPLOYED IN IOR





COAST GUARD – BEAT CONSTABLE

FISHERIES



FISHING VESSELS

- OVER 3 LAKHS REGISTERED VESSELS
- TRADITIONAL, MOTORIZED ,MECHANISED BOATS
- VERY FEW DEEP SEA FISHING CRAFT
- POSITIVE IDENTIFICATION AT SEA – REMAINS A PROBLEM

ILLEGAL, UNREPORTED AND UNREGULATED FISHING

- VESSELS NOT REGISTERED
- VESSELS SWITCHING OFF **AUTOMATIC IDENTIFICATION SYSTEM(AIS)**
- FISHING WITH ILLEGAL GEAR
- FISHING DURING MONSOONS
- FISHING IN EEZ WITHOUT LICENCE
- TRANSHIPPING WITH OUT PERMISSION
- FISHING USING EXPLOSIVES



DHOW



DHOWS

- TRADITIONAL CRAFT
- BUILT ALONG WEST COAST –MANDVI,RATNAGIRI,BEYPORE
- UP TO 2000 TONs
- CARRY ONION, POTATOES ,LIVE STOCK TO WEST ASIA & NORTH AFRICA
- BUILDING MATERIAL AND FOOD TO LAKSHWADEEP ISLANDS
- SOME REPORTEDLY INVOLVED IN NEFARIOUS ACTIVITIES - PIRACY OFF SOMALIA – CARRYING WEAPONS FOR WARLORDS
- SOME THEMSELVES PIRATED
- POTENTIAL FOR ILLEGAL ACTIVITIES –ESPECIALLY ON RETURN TRIPS

IN EEZ- OFF SHORE DEVELOPMENT AREA



More later.....

EXTRA REGIONAL FORCES IN IOR



EXTRA REGIONAL FORCES IN IOR - POST 9/11

- AFGHANISTAN
- IRAQ
- SYRIA
- ISIS
- PIRACY OFF SOMALIA
- 120 SHIPS FROM 20 COUNTRIES AT ANY ONE TIME

EXTRA REGIONAL FORCES

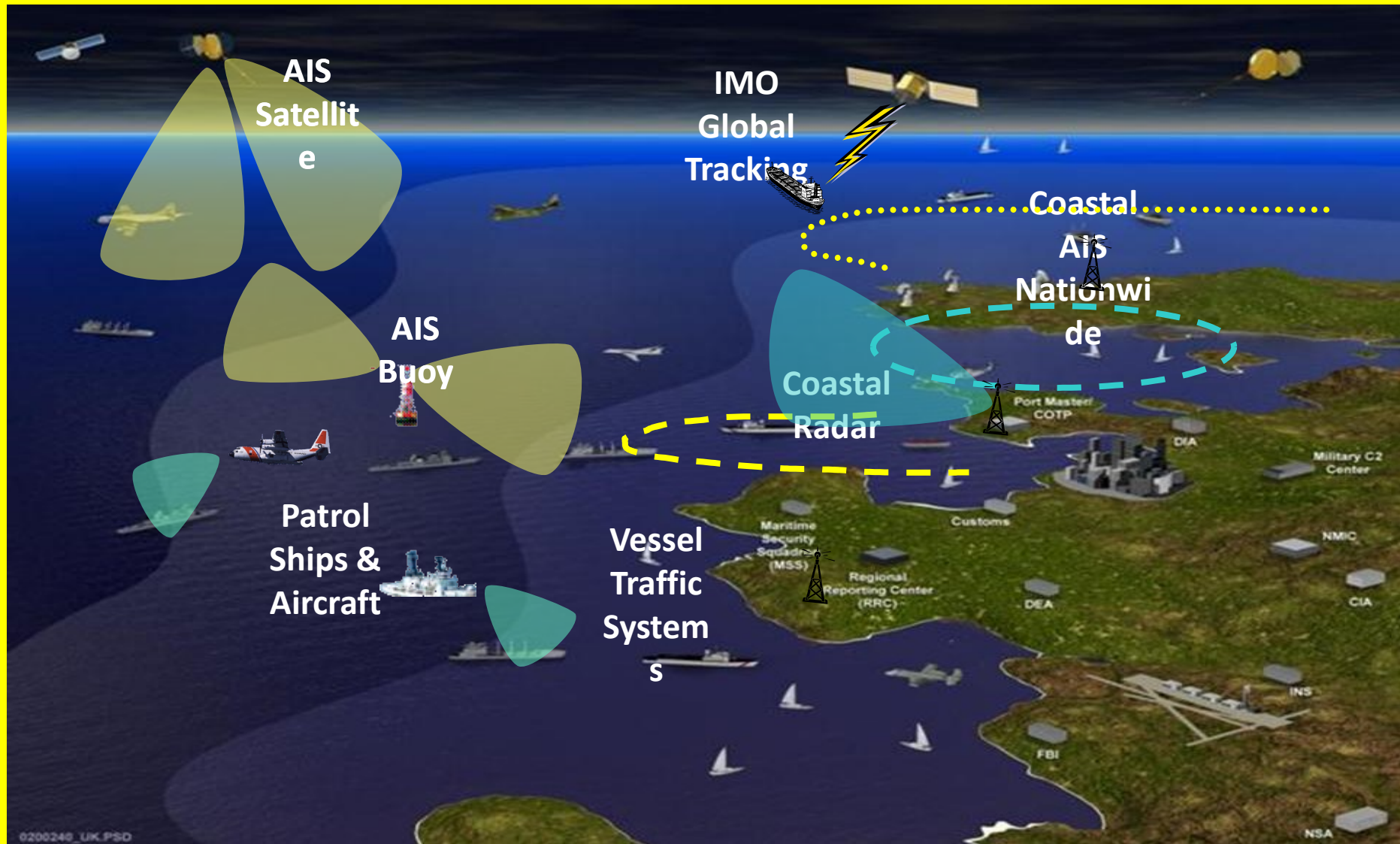


EAST –WEST TRANSIT



USS BOWDITCH - MARINE SCIENTIFIC SURVEY
(MSR)

MARITIME DOMAIN AWARENESS





➤ **NATIONAL COMMAND , CONTROL,
COMMUNICATION & INTELLIGENCE(NC3 I)
FACILITY – GURGAON**

RUKMINI - INDIAN NAVY 'EYE IN THE SKY'



NATIONAL COMMAND CONTROL COMMUNICATION INTELLIGENCE NETWORK



MARITIME DOMAIN AWARENESS (MDA)

➤ PLATFORMS & SENSORS

P8i BOEING LRMP A/C ,

DORNIER A/C



➤ UNMANNED AERIAL VEHICLE (UAV) – HERON , SEARCHER



SHIPS

- INTEGRAL RADARS
- COMMUNICATION INTELLIGENCE (COMINT) ,
ELECTRONIC INTELLIGENCE (ELINT) –LISTENING
DEVICES
- INTEGRAL HELICOPTERS





KAMOV 31-AEW

MARITIME DOMAIN AWARENESS

COASTAL SURVEILLANCE RADAR STATIONS (74 + 8 MOBILE)



- PM MODI INAUGURATED NETWORK OF RADARS - SEYCHELLES (8) MAURITIUS(8) SRI LANKA(6)IN 2015
- JUNE 2019 -MALDIVES (10)
- MYANMAR, BANGLADESH

AUTOMATIC IDENTIFICATION SYSTEM(AIS)-74

MARITIME DOMAIN AWARENESS

- **SHORE BASED LISTENING POST (COMINT+ELINT)**
- **MARITIME SATELLITES**
- **MERCHANT SHIPS –EYES & EARS**

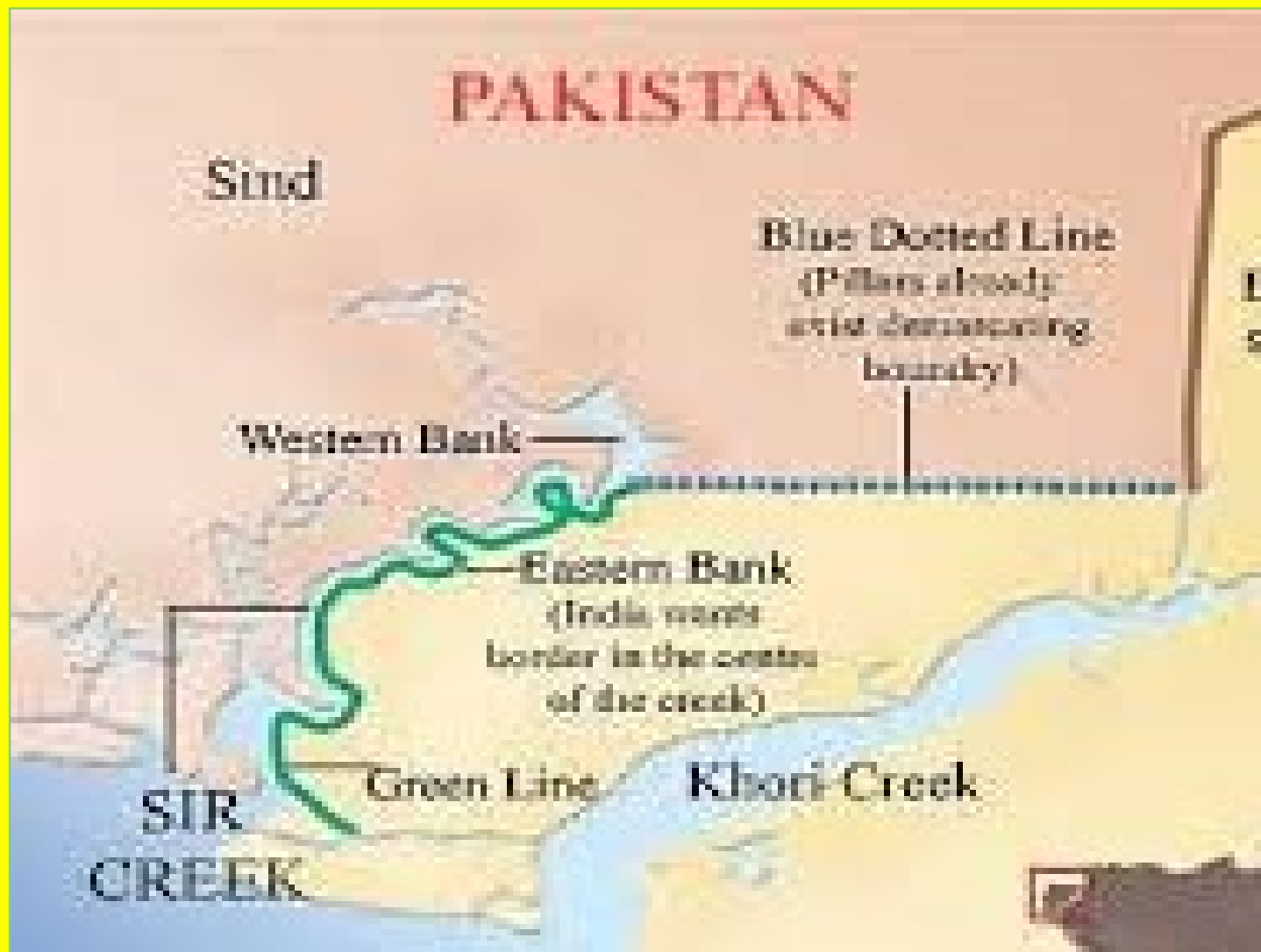


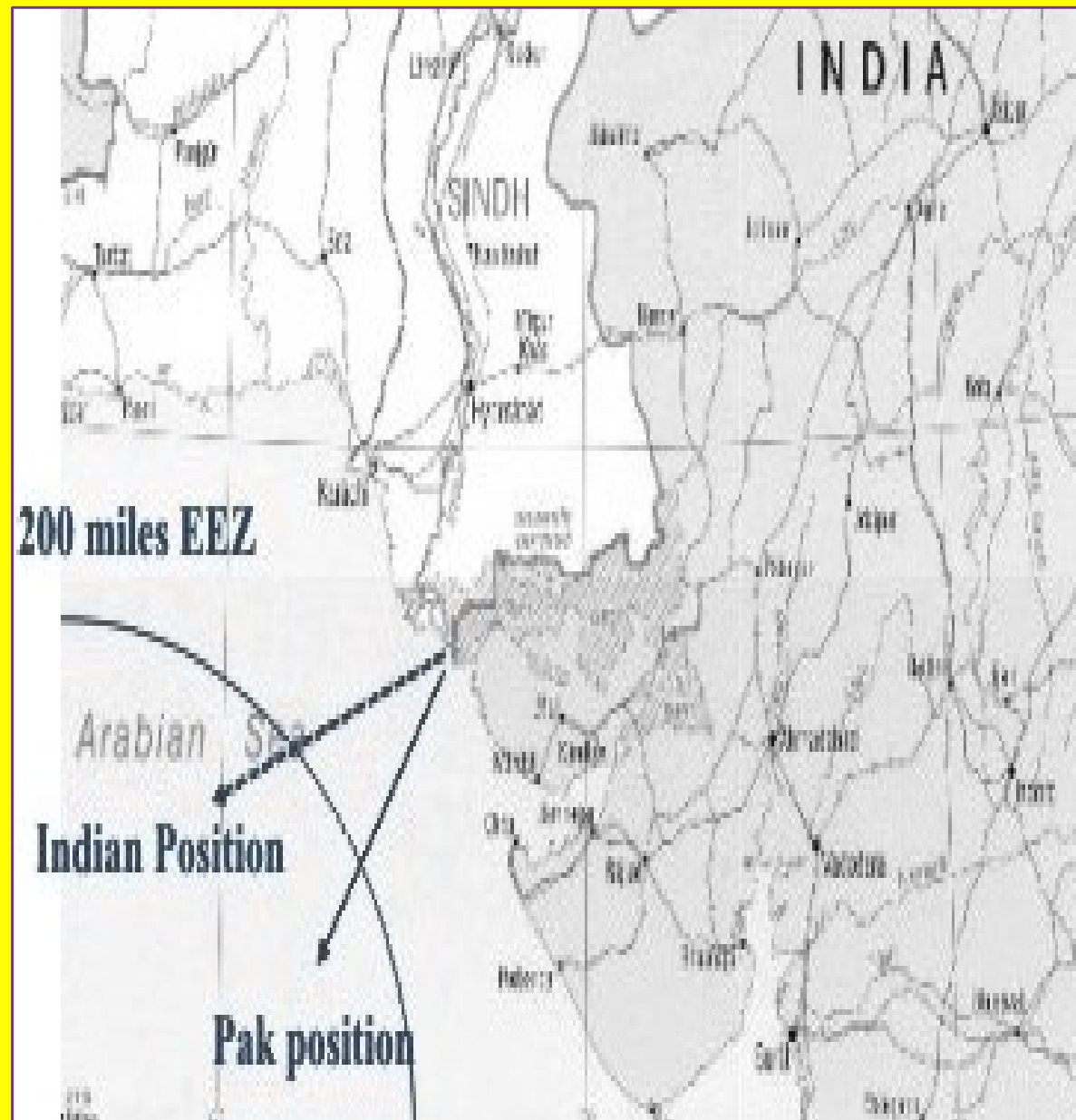
- INTELLIGENCE & INFORMATION SHARING WITH LARGE NO OF COUNTRIES
- SHARING OF WHITE SHIPPING INFORMATION WITH 29 COUNTRIES
- NSA LED TRILATERAL INTELLIGENCE SHARING WITH SRI LANKA, MALDIVES MAY INCLUDE MAURITIUS AND SEYCHELLES IN DUE COURSE ????

NEIGHBOURS

MARITIME NEIGHBOURHOOD

- PAKISTAN ,
 - SRI LANKA,
 - MALDIVES,
 - BANGLADESH
 - MYANMAR,
 - THAILAND,
 - INDONESIA
-
- INTERNATIONAL MARITIME BOUNDARY LINE(IMBL) RESOLVED WITH ALL EXCEPT PAKISTAN
 - INTERNATIONAL MARITIME BOUNDARY LINE (IMBL) WITH BANGLADESH RESOLVED PEACEFULLY IN 2014 .





FISHERMEN OFF GUJARAT

- INDIAN FISHERMEN CAPTURED BY PAK MARITIME SECURITY AGENCY (MSA)
- NETS DESTROYED & BOATS TAKEN AWAY
- IMPRISONED
- ACCUSED OF ESPIONAGE
- FISHERMEN TORTURED IN PRISON AND RELEASED AFTER SEVERAL MONTHS , IF NOT YEARS

PAKISTANI ACTIVITY OFF GUJARAT

❖ ESPIONAGE

❖ INFILTRATION OF PERSONNEL

❖ POSSIBLE TRANSFER OF ARMS AND AMMUNITION

❖ DRUG TRAFFICKING

❖ FAKE CURRENCY RACKET

PAKISTANI BOAT BLOWS UP OFF PORBANDAR 31 DEC 2014



ABANDONED PAKISTANI BOATS OFTEN
FOUND IN PLACES SUCH AS 'HARAMI
NALA' IN SIR CREEK

PAKISTAN

Keti
Bunder

GUJARAT

Bhuj •

Gandhidham •

Kandla Port

Jamnagar •

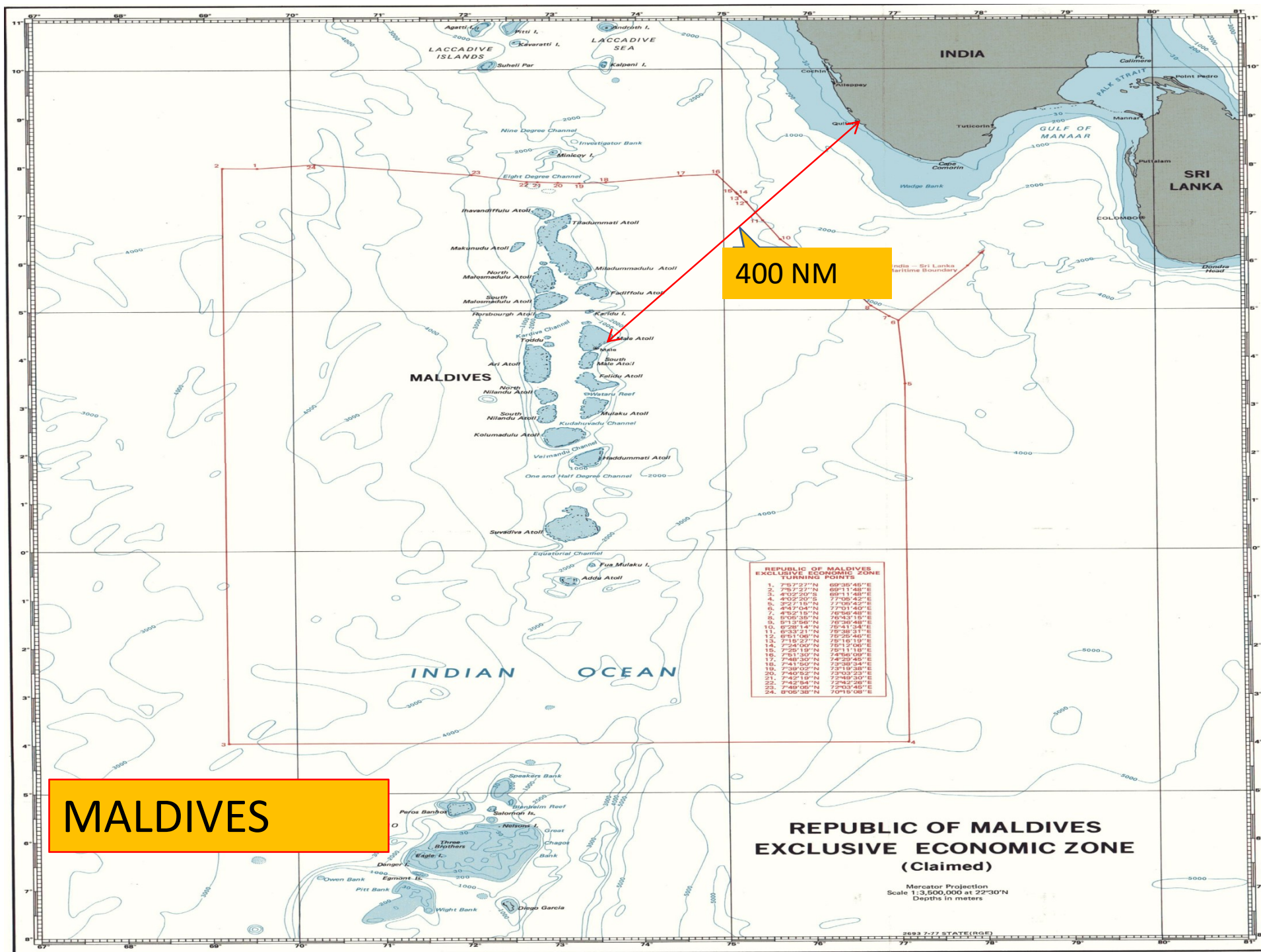
**Harami
Nala**







- POST REVOCATION OF ARTICLE 370- INCREASED TERRORISM THREAT
- NAVY CHIEF ADMIRAL KARAMBIR SINGH - JEM RAISED MARITIME WING- TRAINING FROGMEN FOR UNDER WATER ATTACKS



MALDIVES

400 NM

REPUBLIC OF MALDIVES EXCLUSIVE ECONOMIC ZONE TURNING POINTS	
1. 7°57'22"N	69°58'45"E
2. 7°57'22"N	69°11'48"E
3. 4°02'20"S	69°11'48"E
4. 4°02'20"S	77°05'42"E
5. 2°21'18"N	77°05'42"E
6. 4°47'04"N	77°01'40"E
7. 4°32'15"N	76°58'43"E
8. 6°05'38"N	76°43'15"E
9. 5°13'56"N	76°38'49"E
10. 6°25'14"N	76°41'34"E
11. 6°33'21"N	75°38'31"E
12. 6°11'06"N	75°25'46"E
13. 7°15'27"N	75°19'19"E
14. 7°24'06"N	75°12'06"E
15. 7°25'19"N	75°11'10"E
16. 7°31'30"N	74°56'08"E
17. 7°48'30"N	74°29'45"E
18. 7°41'50"N	73°38'34"E
19. 7°39'02"N	73°19'38"E
20. 7°40'52"N	73°03'23"E
21. 7°42'15"N	72°48'30"E
22. 7°42'54"N	72°42'26"E
23. 7°40'06"N	72°30'48"E
24. 8°05'38"N	70°15'08"E

**REPUBLIC OF MALDIVES
EXCLUSIVE ECONOMIC ZONE
(Claimed)**

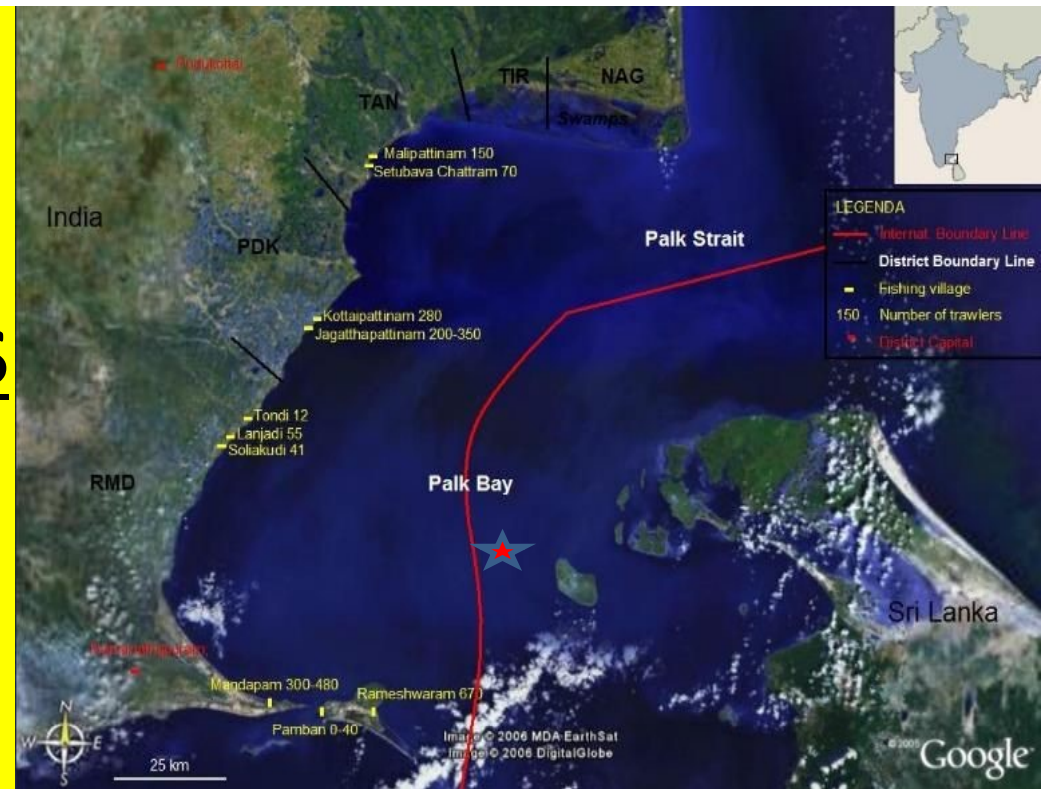
Mercator Projection
Scale 1:3,500,000 at 22°30'N
Depths in meters

SRI LANKA



PALK BAY FISHING WARS

KACHHATIVU



- GOVT HAS TOLD SUPREME COURT THAT **KACCHATIVU** WAS NEVER CEDED TO SRI LANKA .
- INDIAN SIDE OF PALK BAY OVERFISHED
- LEGALLY INDIAN FISHERMEN CAN NOT CROSSOVER THE IMBL TO FISH IN SRI LANKAN WATERS
- **POTENTIAL TO FLARE UP INTO BILATERAL DIPLOMATIC PROBLEMS .**

EASTER BOMBINGS IN SRI LANKA

- NATIONAL TAWHEED JAMAAT -NTJ
- ISIS LINK
- INDIA CONNECTION
- NIA INVESTIGATION –RAIDS IN COIMBATORE



JAMAAT UL –MUJHADEIN BANGLADESH (JMB)

EXPLOSION -CAFÉ AT DHAKA

ISLAMIC STATE

AL QAEEDA

ANSARULLAH BANGLA TEAM

BAY OF BENGAL /BANGLADESH/MYANMAR

- GUN RUNNING
- DRUG SMUGGLING
- POACHING
- ROHINGYAS

ROHINGYA CRISIS

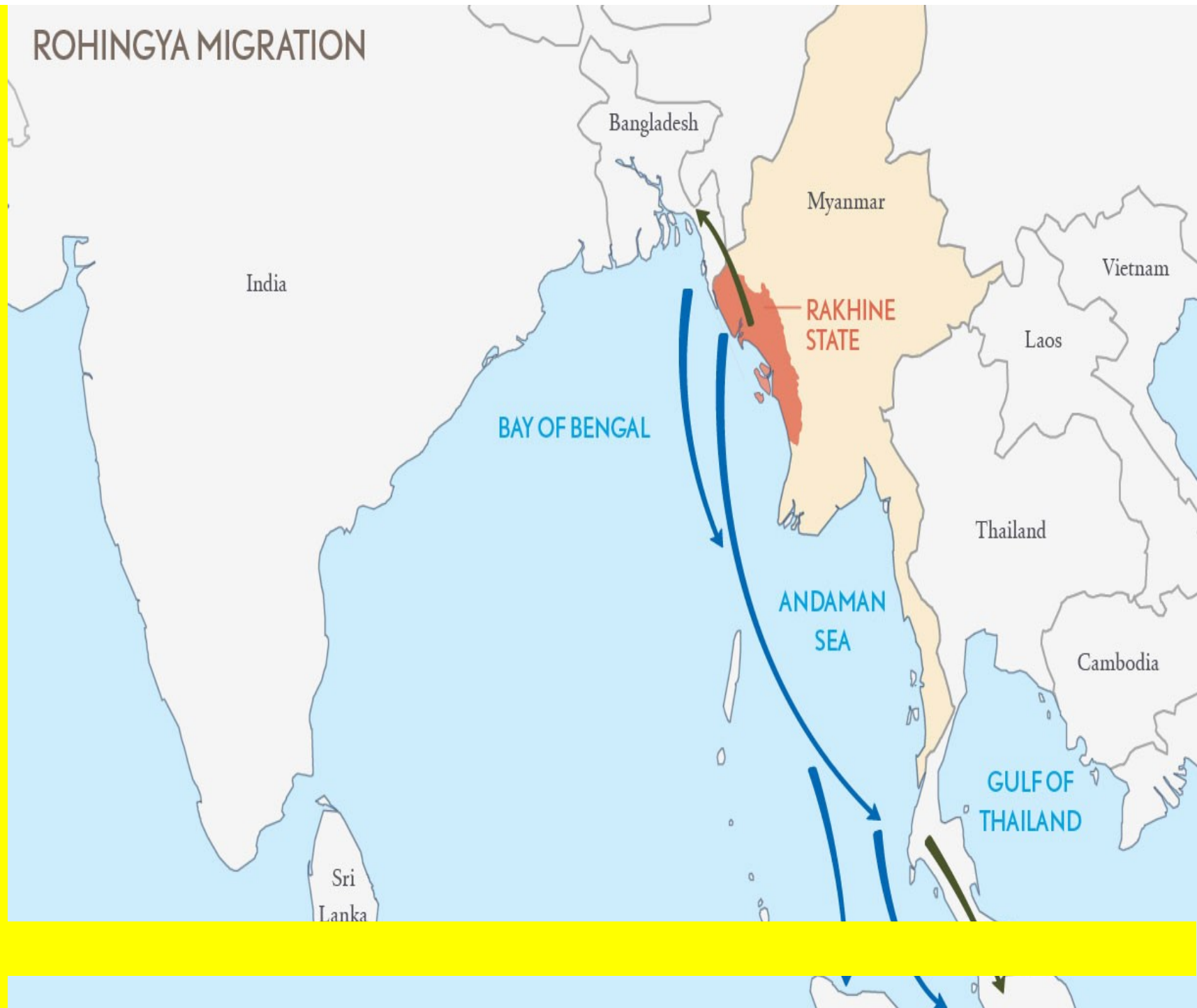
- **PAKISTANI AGENCIES - RECRUIT ROHINGYAS - MYANMAR ,BANGLADESH OR INDIA -**
- **COULD TEAM UP WITH INSURGENT GROUPS IN OUR NORTH- EAST AND MAOIST GROUPS IN THE RED CORRIDOR**
- **ROHINGYA BOAT REFUGEES HEADING TO SOUTH EAST ASIA EARLIER STRANDED IN A& N ISLANDS**
- **ROHINGYAS IMPETUS - ARMS , DRUGS AND HUMAN SMUGGLING IN NORTH BAY OF BENGAL AND ANDAMAN SEA**



ROHINGYA CRISIS



ROHINGYA MIGRATION



POACHING



MYANMARESE OFTEN CAMP IN OUR ISLANDS USING WOODEN DUGOUTS TO POACH FOR SEA CUCUMBER

➤ DELICACY IN SOUTH EAST ASIA ;APHRODISIAC

➤ EXPENSIVE



THREATS

CHINA

ASYMETRIC THREATS IN THE INDIAN OCEAN

- CHINESE TRAWLERS ARE A COMMON SIGHT CLOSE TO OUR EEZ
- INTELLIGENCE COLLECTION- MONITORING MISSILE FIRINGS OFF WHEELER ISLANDS ETC

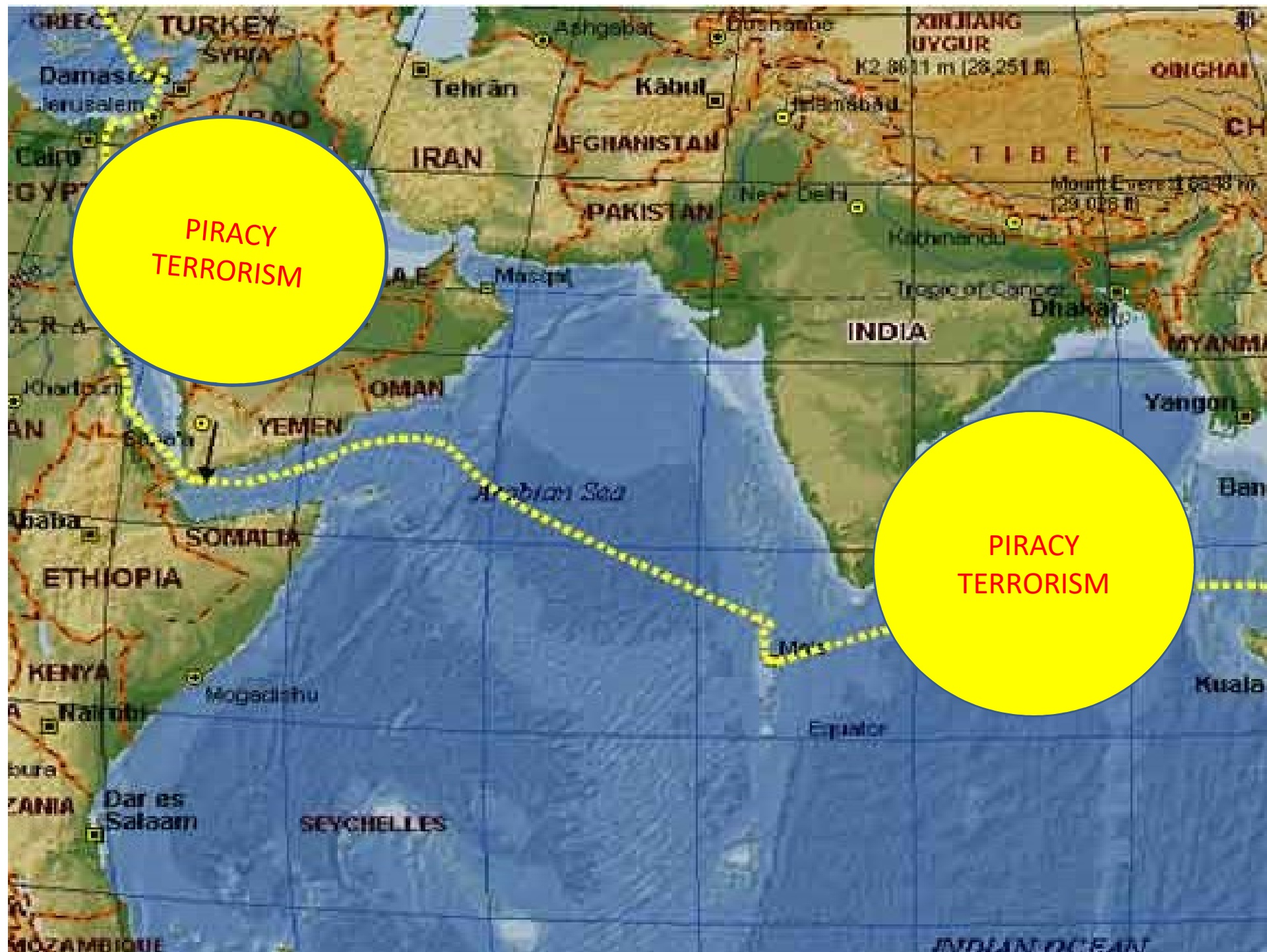


CHINESE VESSELS IN IOR

- CHINESE RESEARCH SHIP **SHI YAN 1**- SIGHTED CARRYING OUT HYDROGRAPHIC AND OCEANOGRAPHIC SURVEY OFF A&N IN DEC 2019
- CAN ALSO USE UNMANNED UNDERWATER VEHICLES







ASYMMETRIC THREATS AT SEA

- MARITIME TERRORISM 
- MARITIME PIRACY
- ILLEGAL ,UNREPORTED & UNREGULATED FISHING (IUU)
- DRUG TRAFFICKING
- ILLEGAL MIGRATION
- PEOPLE SMUGGLING
- SMUGGLING OF CONTRABAND
- POACHING
- GUN RUNNING
- NARCO-TERRORISM
- MARITIME CYBER CRIMES

MARITIME TERRORISM

MARITIME TERRORISM

WE LIVE IN A TROUBLED NEIGHBOURHOOD

❖ PAK SPONSORED TERRORISM

❖ MALDIVES

❖ SRI LANKA

❖ BANGLADESH

TERRORIST GROUPS IN WEST ASIA & SOMALIA

- **AL QAEEDA**

- **TALIBAN**

- **LASHKAR**

- **JEI**

- **AL SHABAB TERRORISTS – AFRICAN CONTINENT**

INCLUDING SOMALIA

- **HOUTHİ REBELS –YEMEN**

TERRORIST GROUPS IN SOUTH EAST ASIA

➤ **ABBU SAYAFF GANG (ASG)**

E

➤ **MORO ISLAMIC LIBERATION FRONT (MILF)**

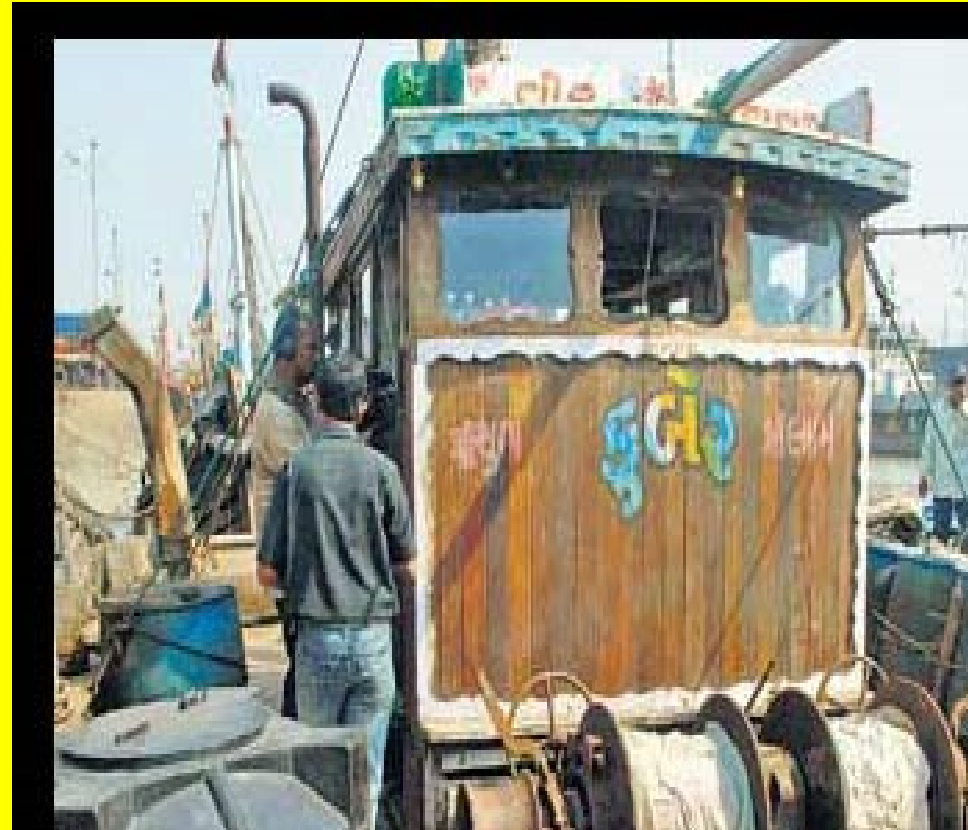
➤ **JEMIAH ISLAMIAH (JI)**

➤ SEA GOING SKILLS - NUMEROUS MARITIME TRAINING CENTRES ALL OVER THE WORLD INCLUDING INDIA

➤ GPS AND SATCOM SETS HAVE MADE THING EASIER

➤ SYMBIOTIC REATIONSHIP BETWEEN TERRORISTS AND PIRATES?

MARITIME TERRORISM



- 1993 MUMBAI BLASTS
- 26/11 ATTACKS

INSTANCES OF TERRORIST ATTACK AT SEA



USS COLE -2000



MV LIMBURG- 2002



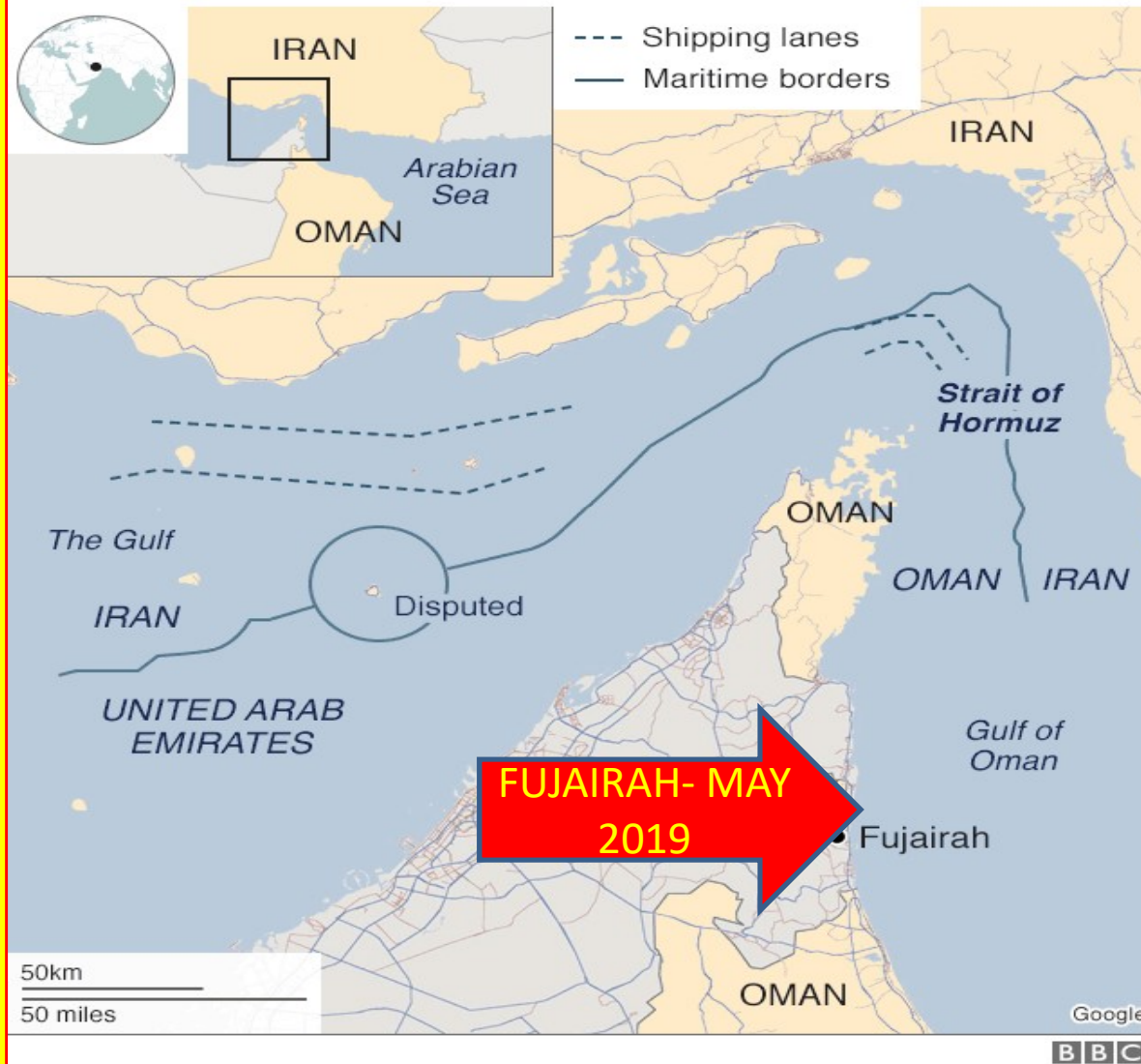
UAE SHIP HIT BY HOUTHY MISSILE
ATTACK -2017



SAUDI SHIP HIT BY HOUTHY
EXPLOSIVE LADEN BOAT -2017



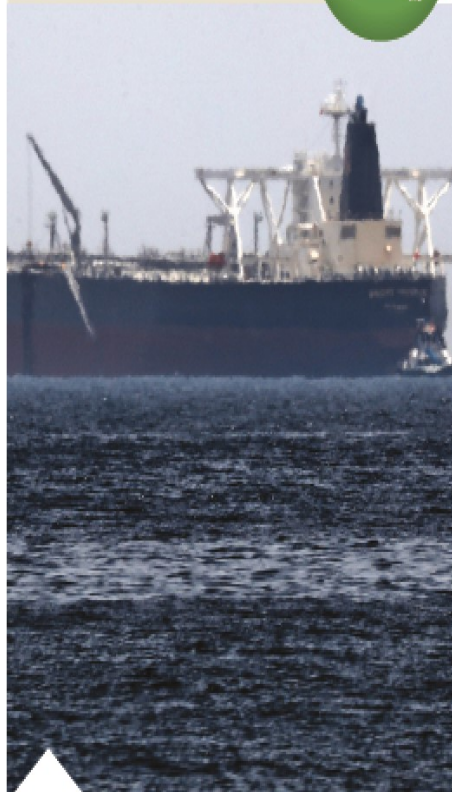
Strait of Hormuz



A. Michel
UAE



Amjad
Saudi Arabia



Al Marzoqah
Saudi Arabia



Andrea Victory
Norway



CHERRY WATERS: A collection of funded photographs provided by the UAE and sent to the United Nations show underwater

FUJAIRAH ANCHORAGE - HORMUZ - MAY 2019







GULF OF OMAN

JUNE
2019

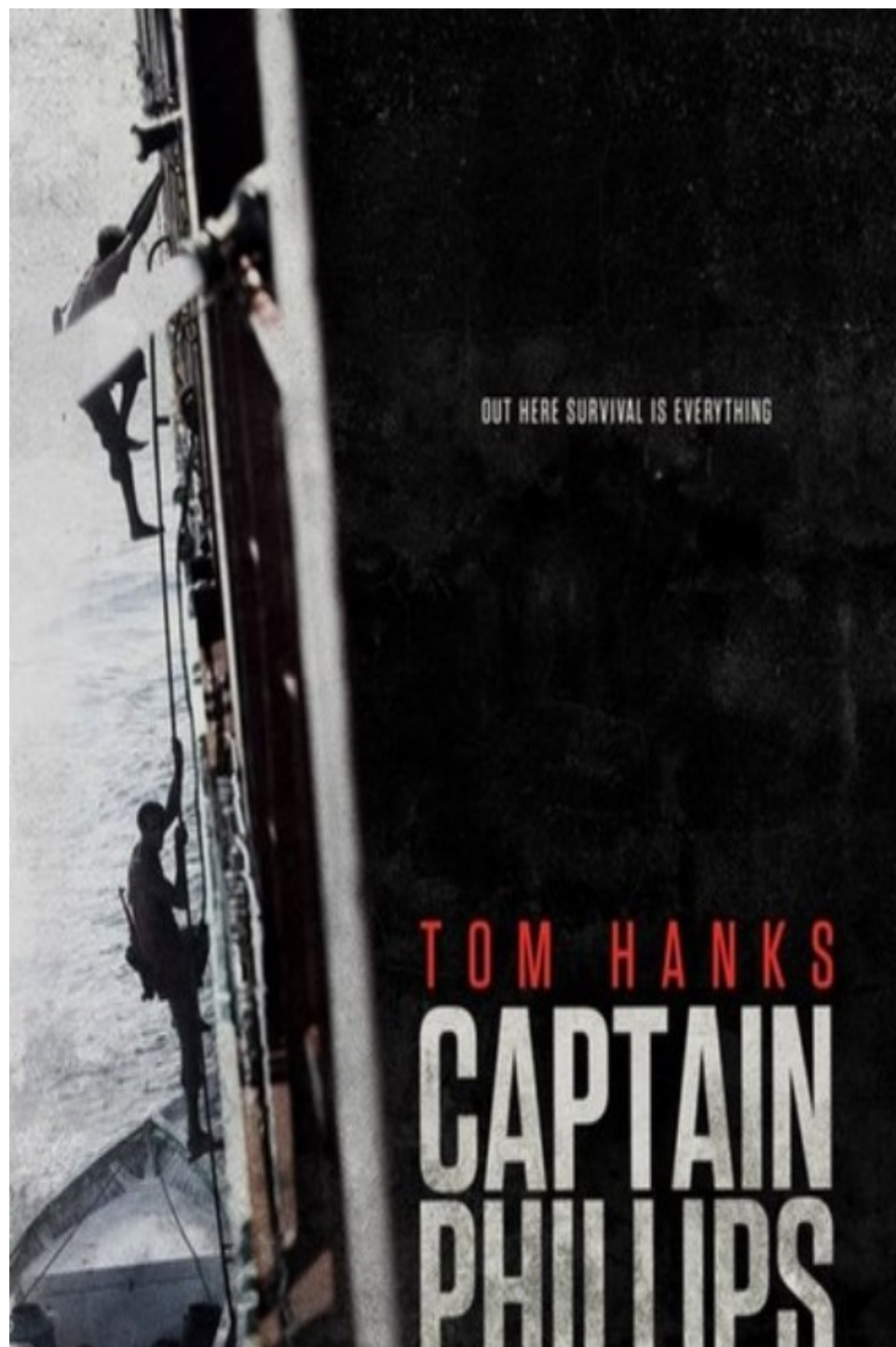




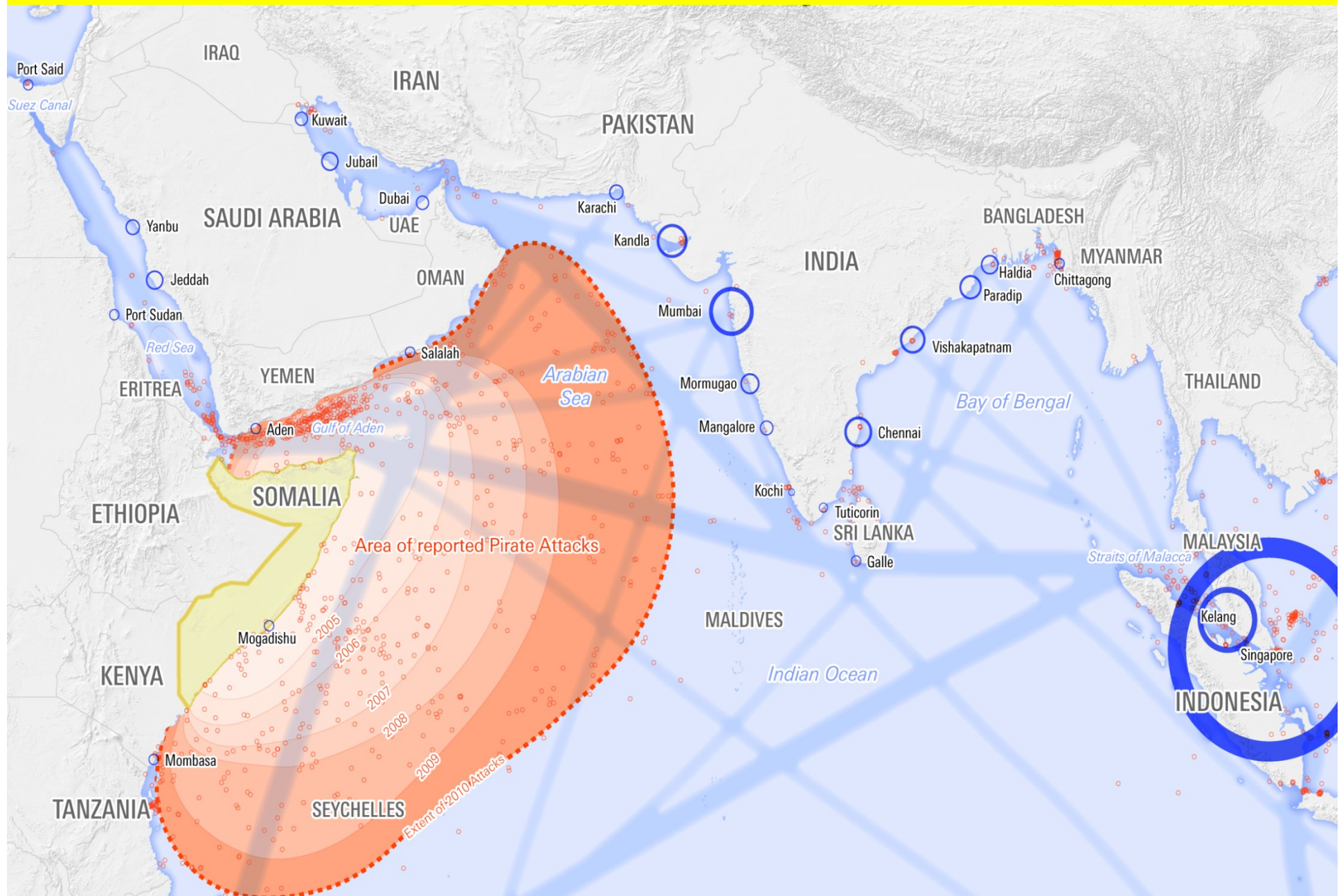
PIRACY AT SEA



JOLLY ROGERS STILL FLIES



PIRACY OFF SOMALIA



PIRACY -SE ASIA

- MALACCA STRAITS
- SULU SEA
- CELEBES SEA



PIRACY



- OCEAN GOVERNANCE DEFICIT
- VAST EXPANSE OF THE SEA
- OPAQUE AND AMORPHOUS
- UNPOLICED WATERS
- SLOCs –ECONOMIC ARTERIES –MAGNET FOR PIRATES
- LAX COASTAL & PORT SECURITY
- SKELTON CREW ON SHIPS TO SAVE ON COSTS
- LACK OF INTERNATIONAL JURISDICTION ON THE HIGH SEAS

PIRACY

- PIRACY CONTAINED BY DEPLOYMENT OF INTERNATIONAL NAVIES , ARMED GUARDS ON BOARD SHIPS AND ADOPTION OF BEST MANAGEMENT PRACTICES (BMP) BY SHIPS AND COS;
- ONE INDIAN NAVAL SHIP CONSTANTLY ON ANTI –PIRACY PATROL IN HORN OF AFRICA(HOA) SINCE 2008
- INDIA'S ANTI PIRACY BILL ISSUED IN 2018 – A DECADE AFTER PIRACY ERUPTED OFF SOMALIA

PIRACY

- INDIA OPERATES INDEPENDENTLY FOR ANTI PIRACY OPERATIONS
- CTF 51, NATO ,EU
- INTERNATIONAL ANTI PIRACY TASK FORCE UNDER UN FLAG

PIRACY

- INTERNATIONAL AND INDIAN DOMESTIC LAWS- WEAK
- UNCLOS 82 - DEFINITION ,PENALTY NOT SPECIFIED
- HIGH SEAS -- NO NATIONAL JURISDICTION

- NATIONALITY OF PIRATES
- NATIONALITY OF CREW
- NATIONALITY OF VICTIMS
- FLAG STATE OF PIRATE SHIP
- FLAG STATE OF VICTIM SHIP
- FLAGS OF CONVENIENCE (FOC)
- NATIONALITY OF SHIP OWNERS

PIRACY –FACTORS

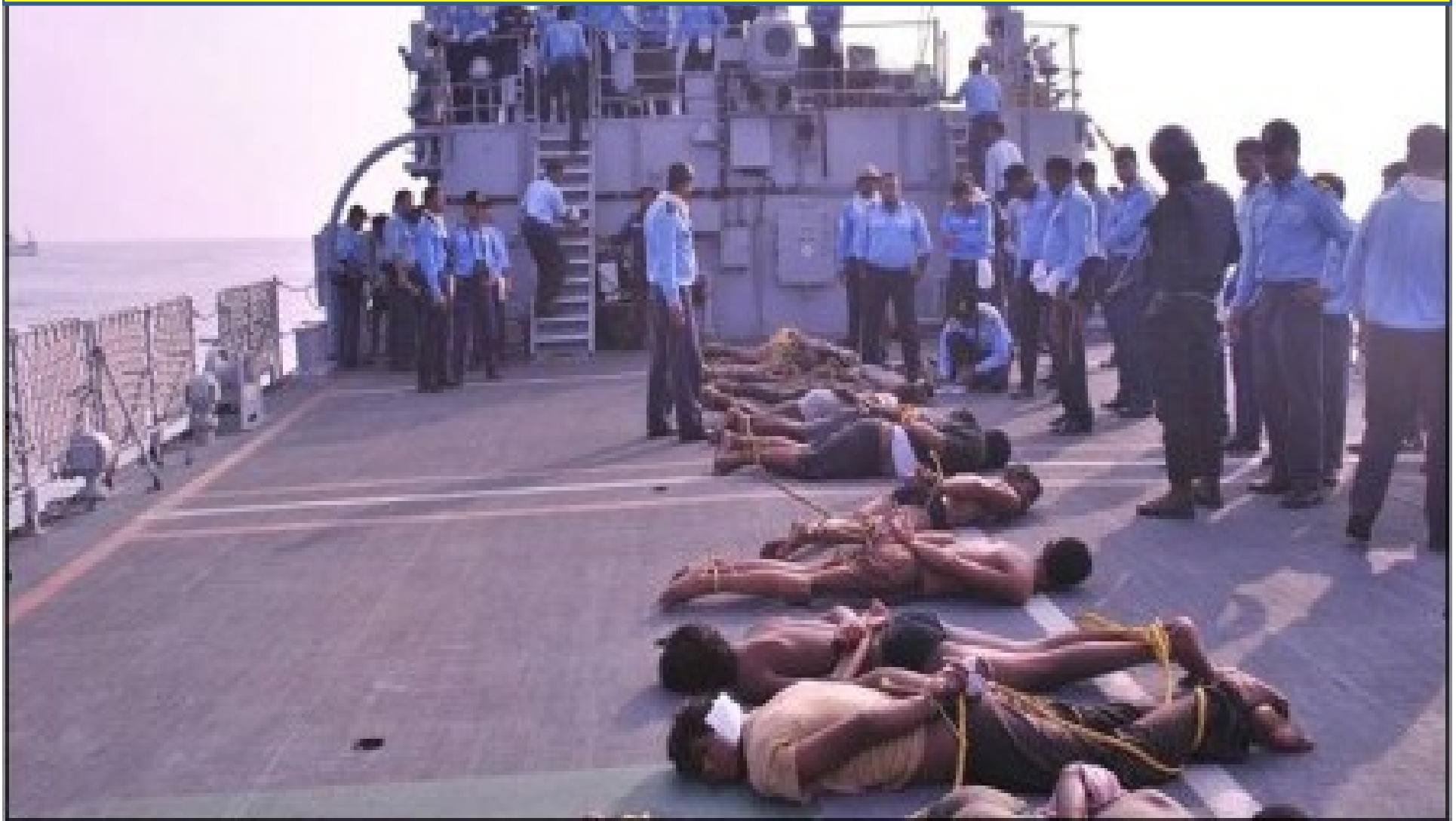
- NATIONALITY OF CARGO
- DESTINATION STATE
- COASTAL STATE WHERE INCIDENT OCCURRED-JURISDICTION
- TOO MANY ACTORS –COORDINATION DIFFICULT
- RELUCTANCE TO PROSECUTE
- LACK OF MARITIME COURTS

CAPTURED PIRATES ONBOARD INDIAN NAVAL SHIP



© AFP/HO/Press Information Bureau of India

CAPTURED PIRATES ONBOARD INDIAN NAVAL SHIP



FIRING BY INS TABAR ON PIRATE MOTHER SHIP



GULF OF GUINEA



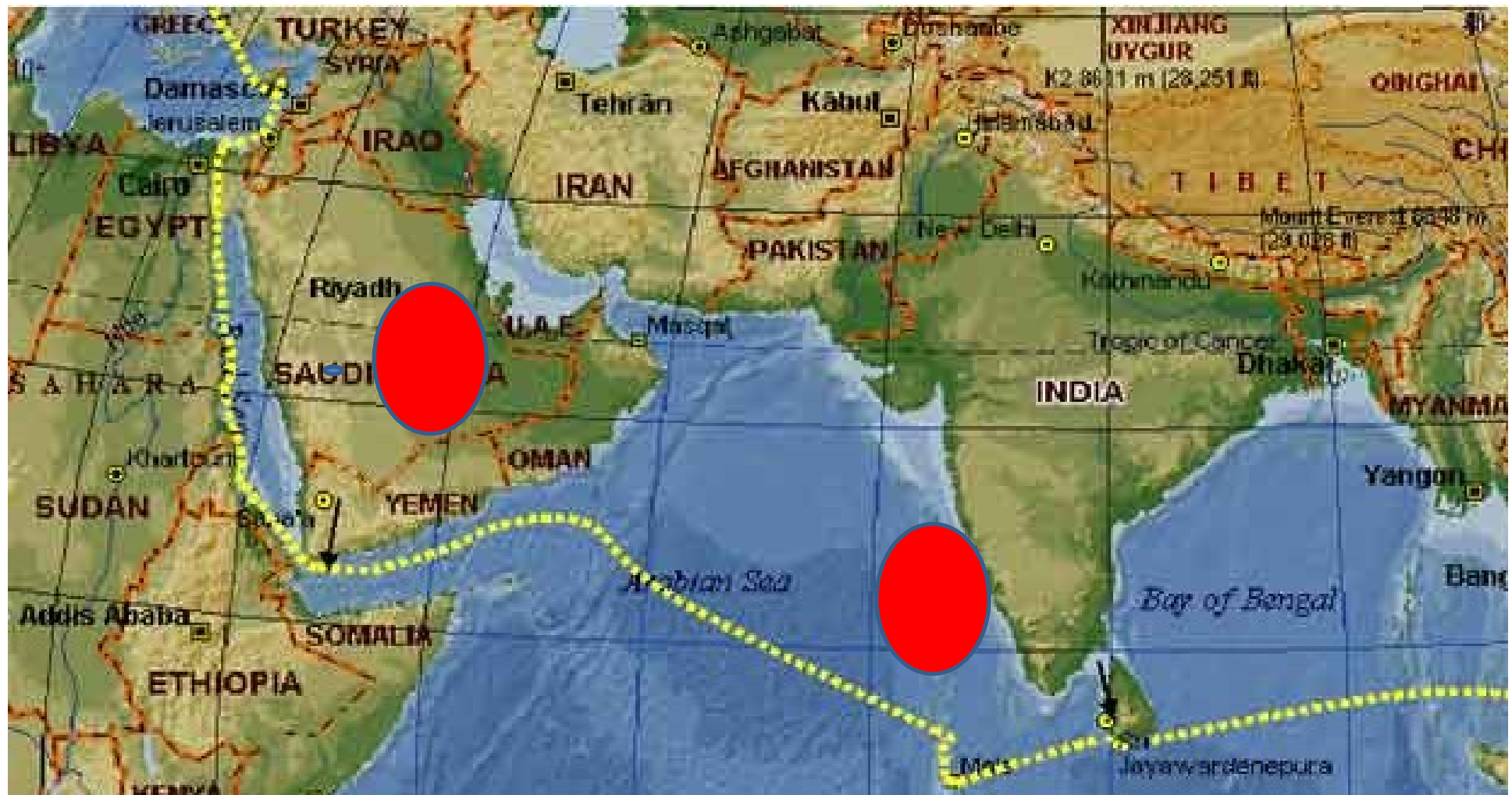
MV ENRICA LEXIE /ITALIAN MARINES INCIDENT





ARBITRAL TRIBUNAL UNDER UNCLOS

- **INDIA IS ENTITLED TO COMPENSATION**
- **BUT CAN NOT TRY THE ITALIAN MARINES**
- **INDIA HAS ACCEPTED THE VERDICT – UNLIKE CHINA**



➤ PRIVATE MARITIME SECURITY COMPANIES (PMSC)

OFF SRI LANKA AND WEST ASIA



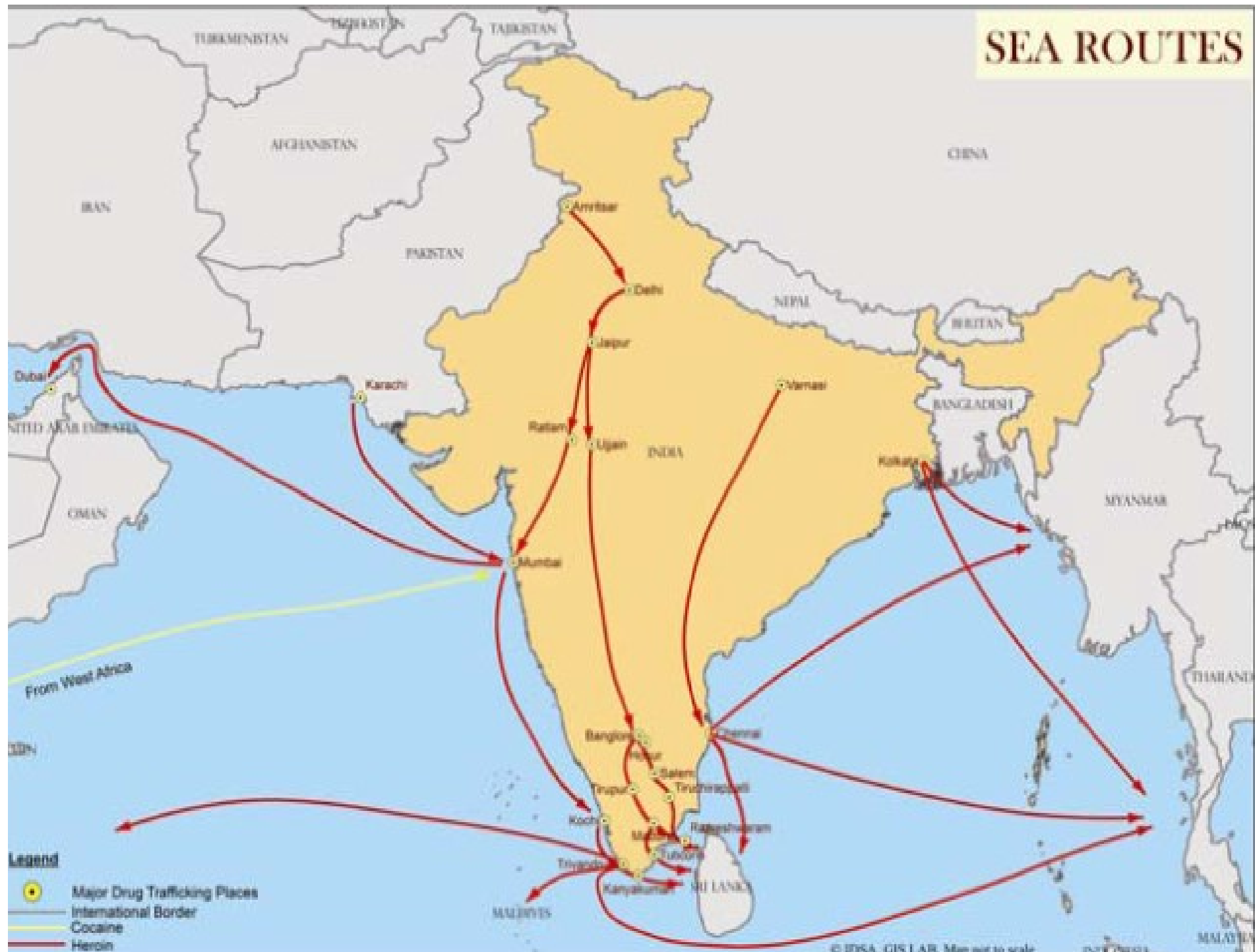


FLOATING ARMOURIES

DRUG TRAFICKING

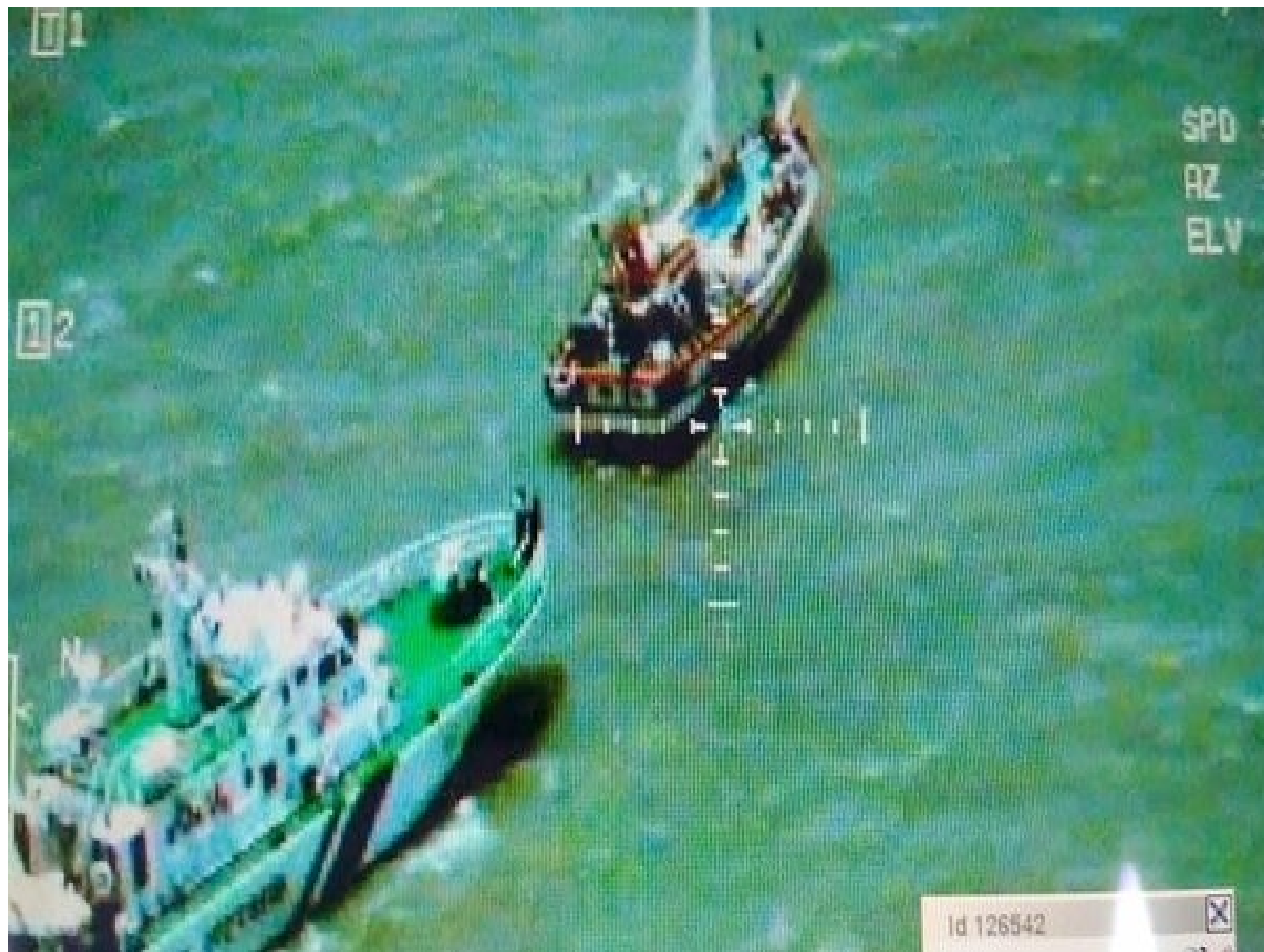


SEA ROUTES



DRUGS HAUL

- ICG SEIZES PAKISTANI BOAT 'AL MADINA'
- OFF JAKHAU IN JUNE 2019
- 200 KG OF HEROIN
- WORTH RS 600 CR
- BASED ON DRI INPUT





MOVEMENT OF SUSPICIOUS -VESSELS, CARGO & CREW



**IRANIAN DHOW -BAROOKI- OFF KERALA -
2015**



VULNERABILITIES

COASTAL ASSETS

- PORTS & HARBOURS - 12 MAJOR/200 MINOR

REFINERIES AT PORTS



- REFINERIES AT PORTS
- TANKERS,
- PORT OIL HANDLING FACILITIES
- NATIONAL OIL GRID
- ALL VULNERABLE



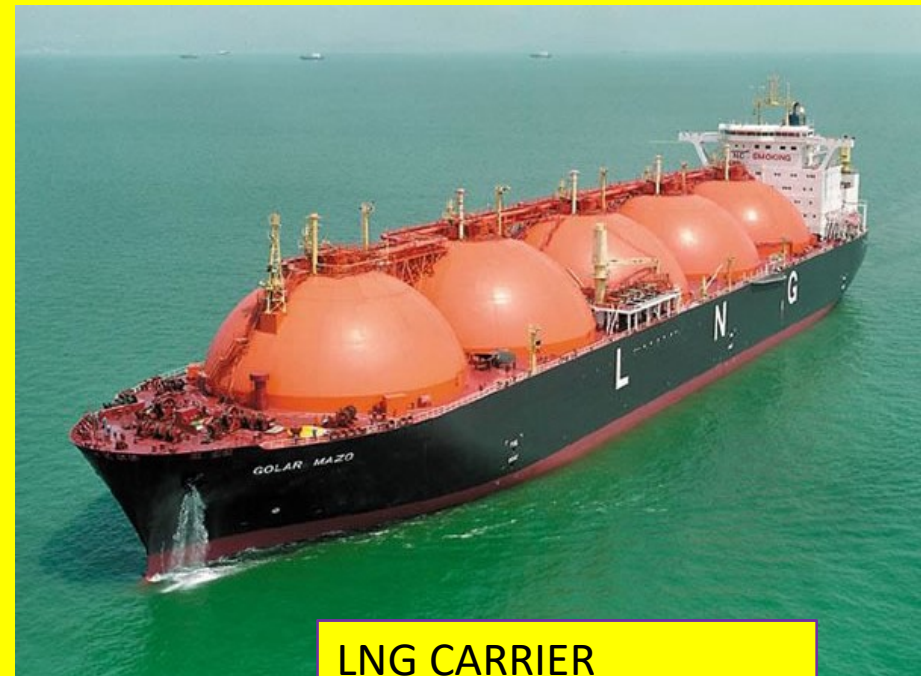


TANKER ALONGSIDE

FLOATING BOMBS



TANKER AT SINGLE POINT MOORING (SPM)



LNG CARRIER

OIL & GAS –STRATEGIC CARGO

- FLOATING BOMBS
- CAN BE EXPLODED OR SUNK IN THE MOUTH OF NARROW HARBOURS LIKE KOCHI ,MANGALORE ETC TO CLOSE PORTS
- CAN THEMSELVES BE USED AS A WEAPON TO RAM INFRASTRUCTURE – a la 9/11
- CARGO CAN CAUSE ECONOMIC & ENVIRONMENTAL DISASTER

THREATS TO OFF SHORE STRUCTURES

- EXPLOSIVES /LIMPET MINES ATTACHED TO LEGS OF RIGS
- SMALL BOATS LOADED WITH EXPLOSIVES TO RAM THE RIGS
- JOINT VENTURES WITH FOREIGN COMPANIES
- ENVIRONMENTAL DISASTER
- ECONOMIC DISASTER



COASTAL ASSETS

NUCLEAR PLANTS

➤ TARAPUR

➤ KAIGA

➤ KUNDAKULAM

➤ KALPAKKAM

•VIKRAM SARABHAI SPACE CENTRE ,TRIVANDRUM

. SRIHARIKOTA- ANDHRA PRADESH

•WHEELER ISLAND- ORISSA

•INDUSTRIAL COMPLEXES- GULF OF KUTCH, GULF OF KHAMBAT

- SHIP BUILDING YARDS- MAZGAON DOCKS , KOCHI SHIYARD ETC
- NAVAL BASES & DOCKYARDS – MUMBAI , KARWAR ETC
- ❖ *NUCLEAR SUBMARINES*
- ❖ *AIRCRAFT CARRIERS*



INS VIKRAMADITYA

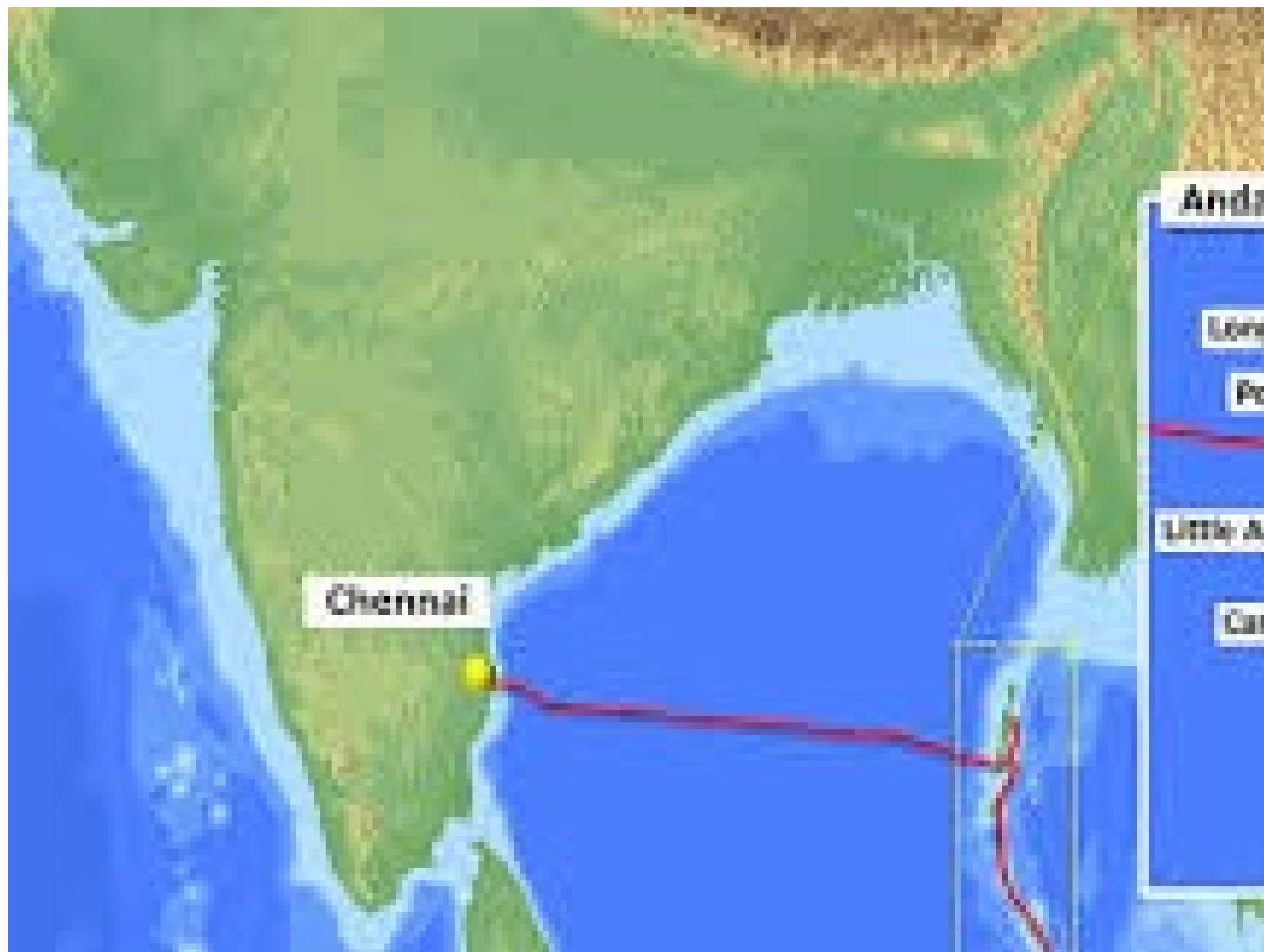


INS CHAKRA

CRUISE SHIPS

- CRUISE TERMINALS –KOCHI ,MUMBAI ,KOLKOTTA ETC
- LARGE NO OF GUESTS & CREW : >3000
- FOREIGNERS OF VARIOUS NATIONALITIES
- PERFECT TARGET FOR TERRORISTS TO DRAW WORLD ATTENTION





PROTECTIVE MEASURES AGAINST THREATS

INTERNATIONAL SHIP AND PORT SECURITY CODE (ISPS)- POST 9/11

**PORTS ARE THE INTERFACE BETWEEN SHIPS,CARGO & CREW AND
FOREIGN SHORES**

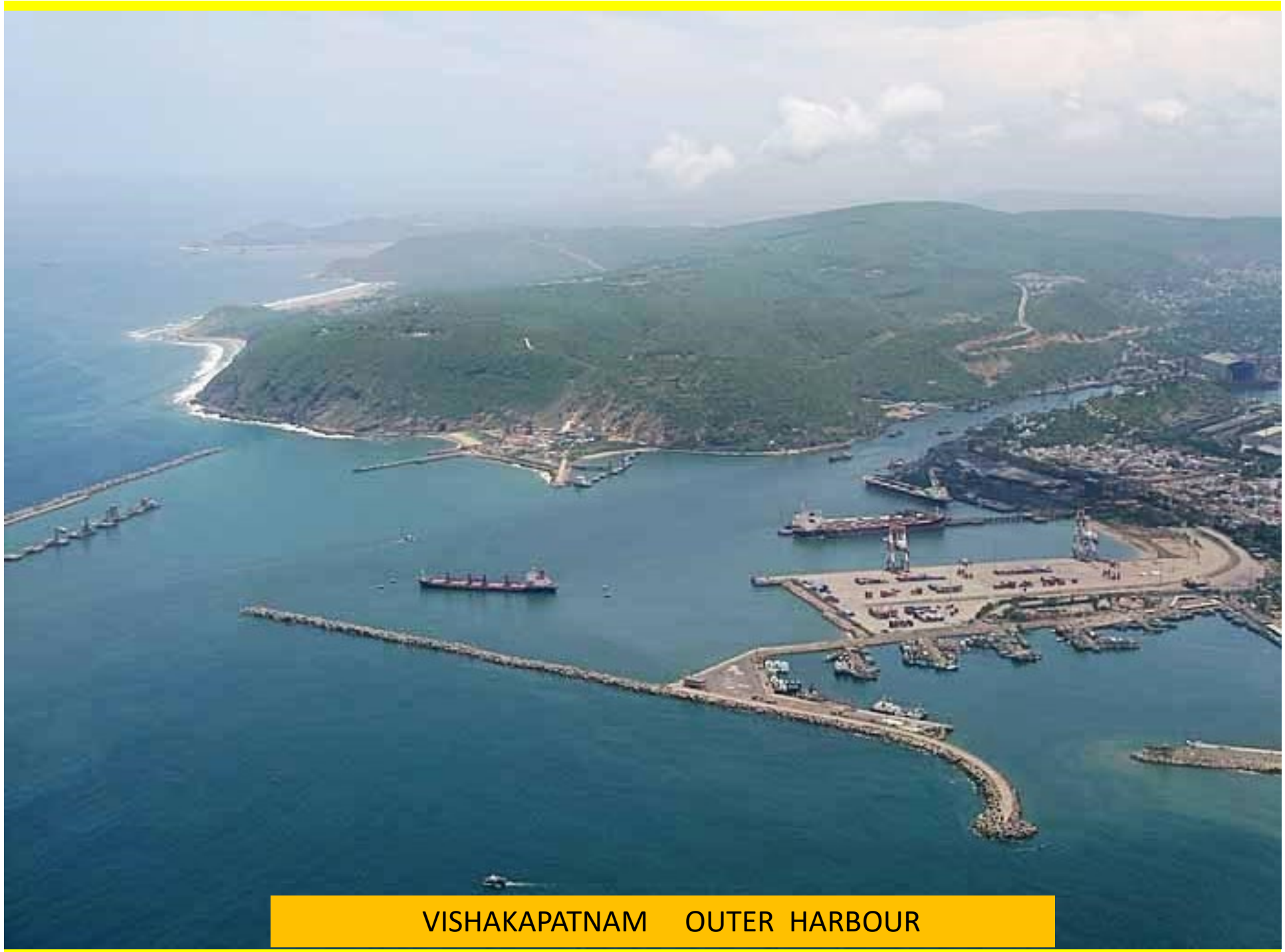
SHIPS

- BUILT IN ONE COUNTRY
- NATIONALITY ANOTHER
- REGISTERED ELSEWHERE
- OWNER IS A
- MANAGED BY B
- CHARTERED BY - C
- CONSIGNOR -D
- CONSIGNEE- -E
- TRANS SHIPPED ENROUTE
- STAFFED BY MULTINATIONAL CREW
- FLAGS OF CONVENIENCE (FOC)
- MARITIME LOGISTIC SUPPLY CHAIN -TENOUS
- DIFFICULT TO FIND OUT OWNERSHIP OF SHIP
& CARGO AND INTENTIONS OF CREW



INTERNATIONAL SHIP AND PORT SECURITY CODE(ISPS) – POST 9/11

- DESPITE CLAIMS, NO INDIAN PORT IS REALLY ISPS COMPLIANT
- PORTS LIKE MUMBAI CAN EASILY BE PENETRATED EVEN TODAY – 12 YEARS AFTER 26/11
- WATER FRONT SECURITY IS WEAK SPOT .
- ACUTE LACK OF OVERSIGHT IN MINOR PORTS
- INTELLIGENCE BUREAU (IB) REPORTS HAVE APPEARED IN THE MEDIA IN THIS REGARD



VISHAKAPATNAM OUTER HARBOUR



VISHAKAPATNAM INNER HARBOUR

CONTAINER SECURITY

CONTAINER SECURITY



CAN CARRY OVER 21,000 + CONTAINERS

POST 9/11 -CONTAINER SECURITY INITIATIVE

- **CONTAINERS(20 FT, 40 FT) -TROJAN HORSES
(TERRORISTS, WEAPONS & EXPLOSIVES ETC)**
- **PAUCITY OF ADEQUATE X-RAY MACHINES**
- **100% SCREENING IMPOSSIBLE**
- **TEECHINT & HUMINT AT CONTAINER STUFFING/ DE-STUFFING CENTRES IS THE KEY.**
- **CUSTOMS PERSONNEL PLAY AN IMPORTANT ROLE .**

EXPLOSIVE SCRAP IMPORTED IN CONTAINERS

EXPLOSIVE SCRAP



➤ FROM IRAQ,IRAN ,AFGHANISTAN FOR SMELTING IN DELHI. HARYANA,RAJASTHAN

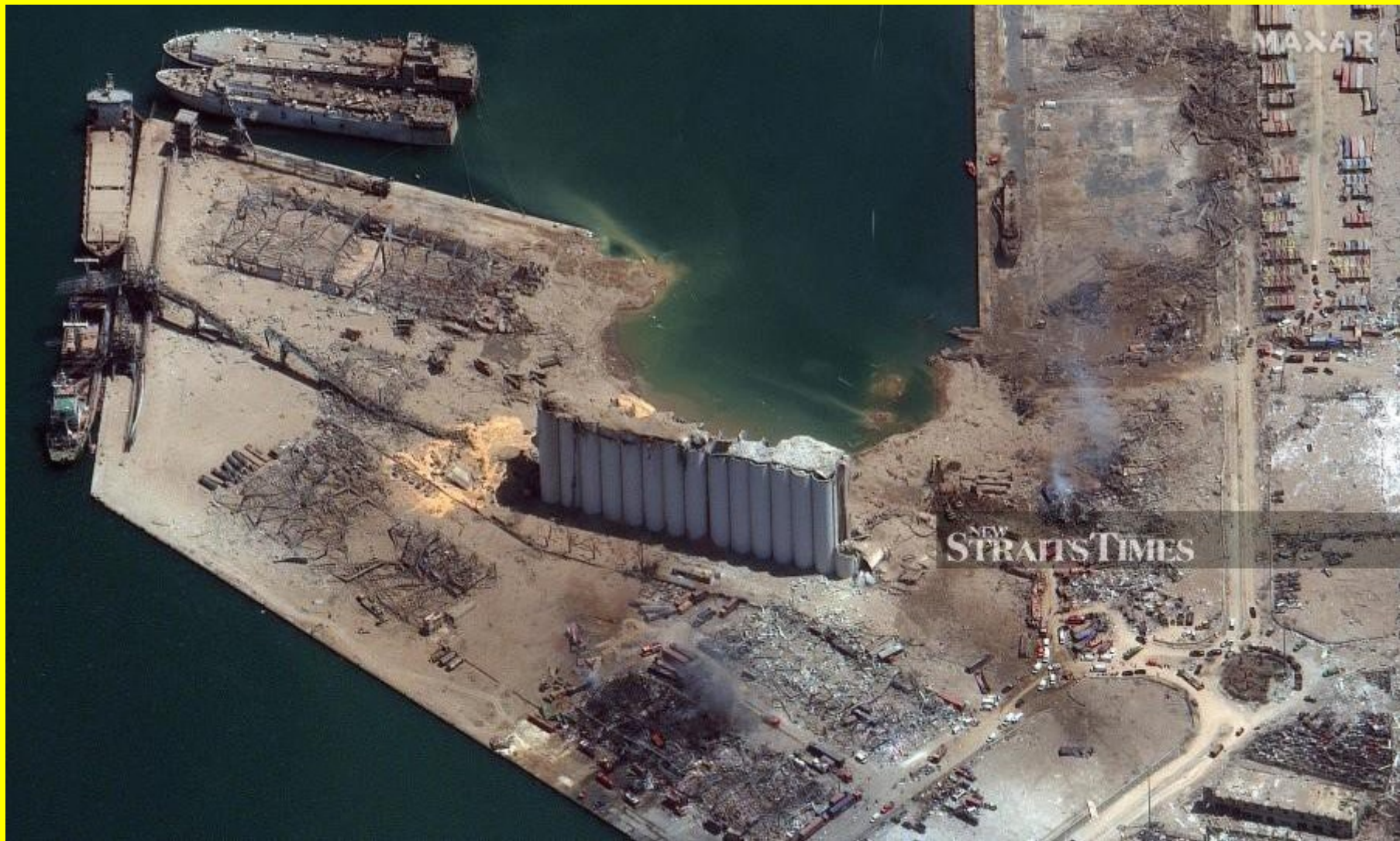
➤ THERE HAVE BEEN EXPLOSIONS FROM LIVE AMMUNITION





**IMPORT OF HAZARDOUS
TRASH**

AMMONIUM NITRATE INCIDENT – BEIRUT



**AMMONIUM NITRATE STORED IN CHENNAI BY CUSTOMS
HAS BEEN MOVED TO HYDERABAD**

FACT FILE



➤ Ammonium n
used in fertilise
explosives

➤ In India, its in
controlled by th
Ammounium Ni
2012

➤ It explodes w
heated. It is use
explosive with a
of fuel oil

➤ Ammounium

ILLEGAL MIGRATION



➤ PEOPLE MOVING FROM **WEST ASIA AND NORTH AFRICA**
TO SOUTH EAST ASIA & AUSTRALIA

➤ MAY PASS THROUGH OUR WATERS



NUCLEAR PROLIFERATION SECURITY



PROLIFERATION SECURITY

- **MV DA CUI YUN**
- **HONG KONG FLAGGED SHIP – BOUND FOR KARACHI**
- **DETAINED IN KANDLA**
- **FEB 2020**
- **AUTO CLAVE USED IN BALLISTIC MISSILE LAUNCH
DECLARED AS INDUSTRIAL DRYER**



NORTH KOREAN VESSEL KU WUL SAN –KANDLA -2006

OIL SPILL & POLLUTION

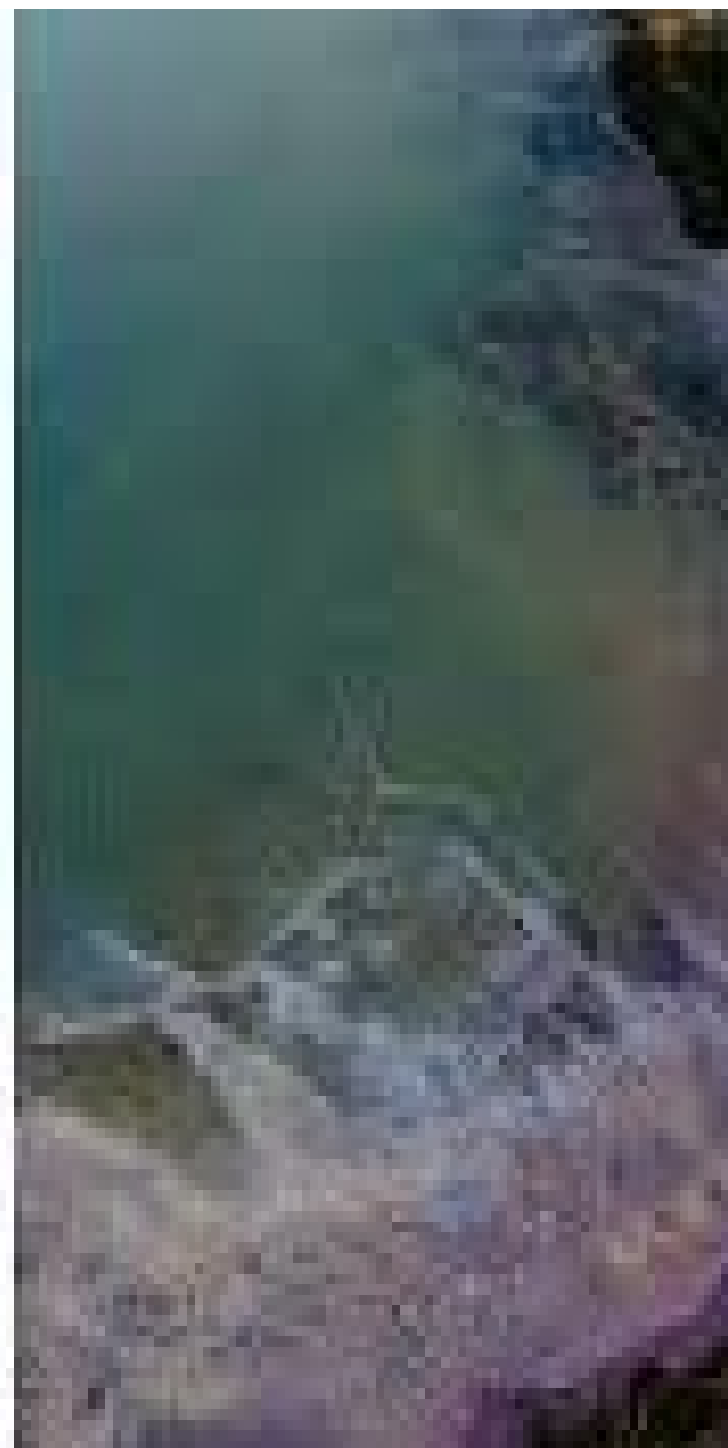


INDIA DESPATCHES –
EQUIPMENT AND
COAST GUARD TEAM

JAPANESE TANKER
MV WAKASHIO

G





OIL SPILL OFF CHENNAI

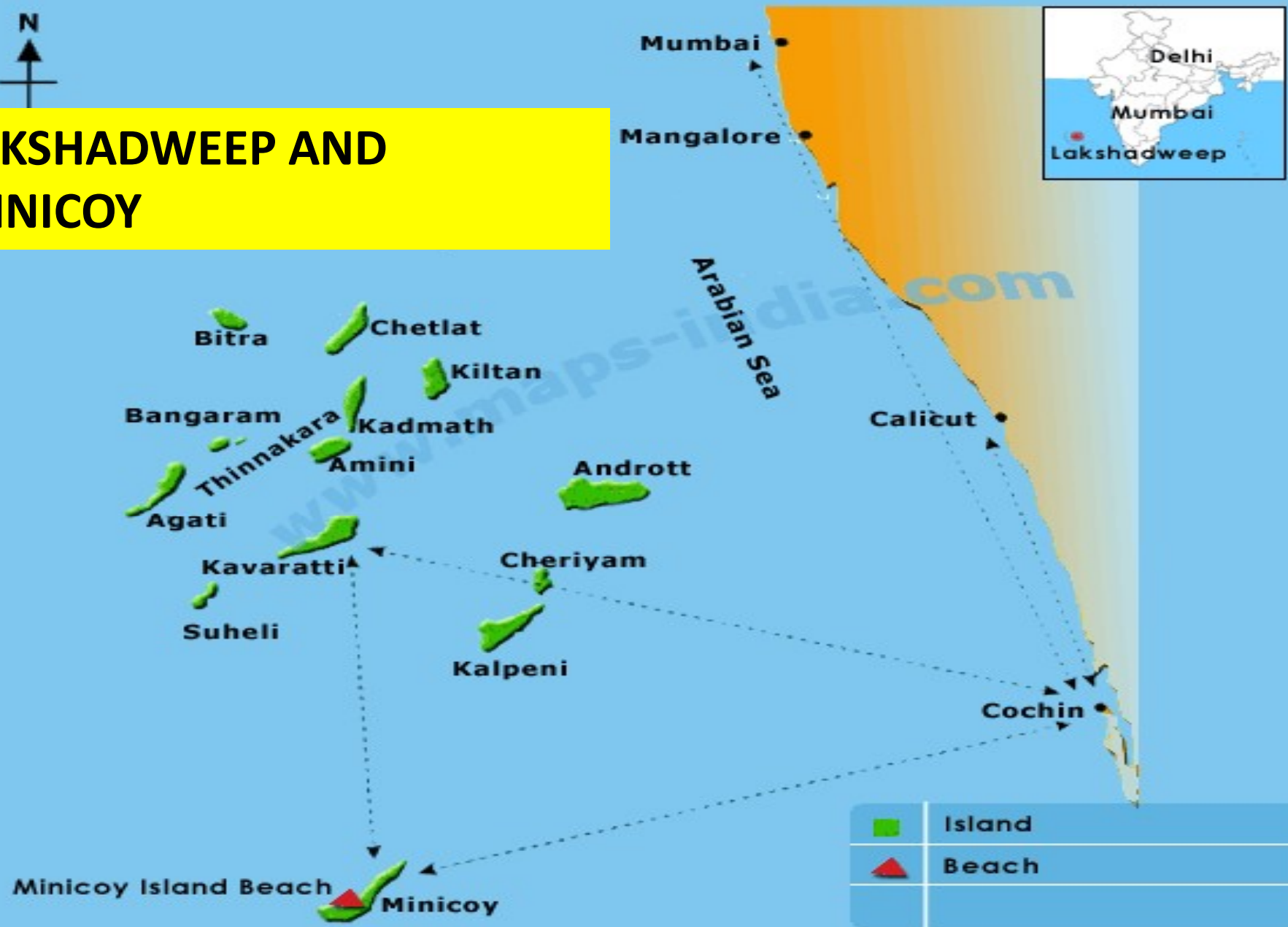




ISLAND TERRITORIES

- **SECURITY OF ISLANDS - SUBJECT BY ITSELF**
- **ANDAMAN & NICOBAR ISLANDS – NEXT SESSION**

LAKSHADWEEP AND MINICOY



Lakshadweep Beach Map

200 -300 KM FROM MAINLAND ,36 ISLANDS ,10 INHABITED

L& M ISLANDS

**KAVARATTI ISLAND –CAPITAL
INS DWEEPRAKSHAK**

- **AGATTI – LONE AIR STRIP**
- **ANDROTH – NAVAL DETACHMENT
COAST GUARD STATION
RADAR STATION**
- **MINICOY – NAVAL DETACHMENT**

COASTAL SECURITY ORGANIZATION

3 TIER COASTAL SECURITY FRAME WORK

MARINE POLICE 0-12 NM
(CURRENTLY TILL 5 NM)

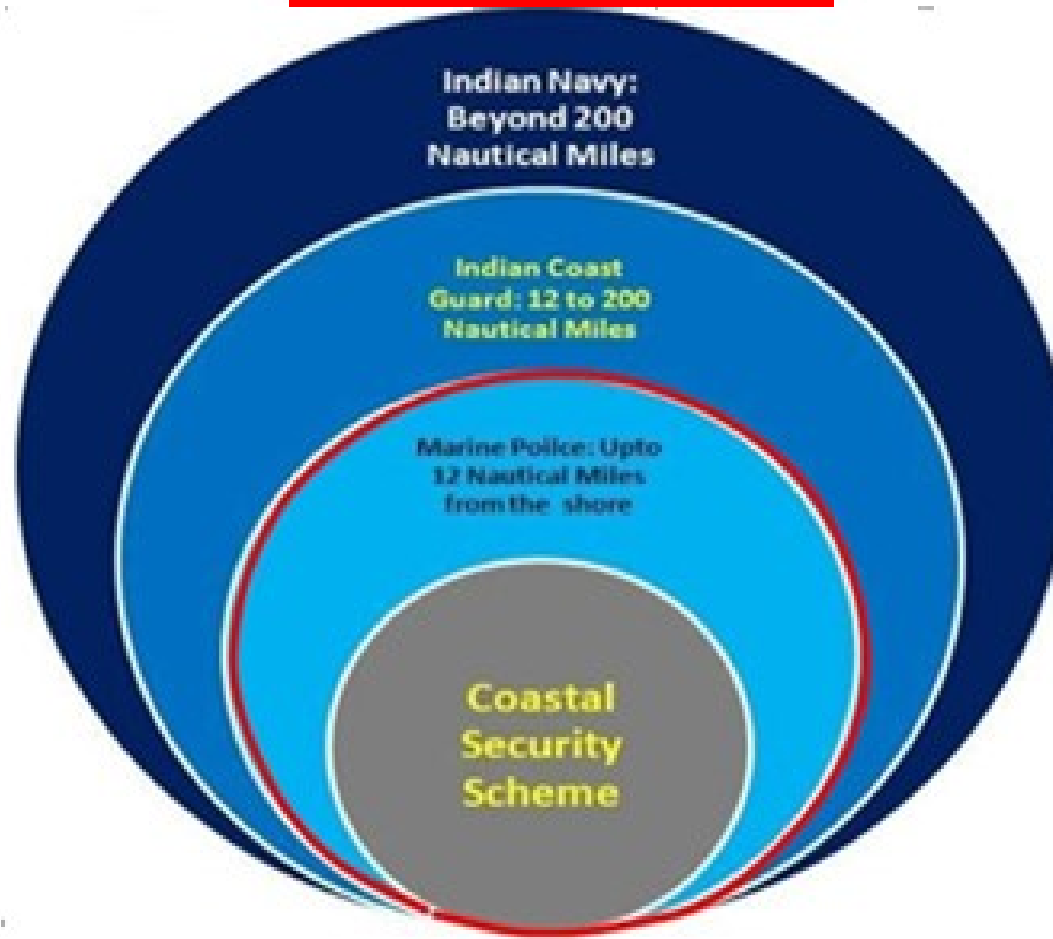
COAST GUARD 12-200 NM

NAVY > 200 NM

HIGH SEAS

INDIAN OCEAN REGION

JURISDICTION AT SEA



MARINE POLICE –LAST LINE OF DEFENCE



INDIAN CUSTOMS



MARITIME STAKE HOLDERS& GOVERNANCE

- MINISTRY OF DEFENCE(MOD)
- MINISTRY OF EXTERNAL AFFAIRS(MEA)
- MINISTRY OF SHIPPING (MOS)
- MINISTRY OF EARTH SCIENCES(MOES)
- MINISTRY OF HOME AFFAIRS(MHA)
- MINISTRY OF PETROLEUM & NATURAL GAS(MOP&NG)
- MINISTRY OF AGRICULTURE (FISHERIES)
- MINISTRY OF LAW
- INDIAN NAVY
- COAST GUARD
- MAJOR PORTS- 12
- NATIONAL HYDROGRAPHIC OFFICE
- DG SHIPPING
- DG HYDROCARBONS
- DGLL
- SHIP BUILDING YARDS
- CISF
- BSF
- INDIAN CUSTOMS
- R&AW, IB , INTELLIGENCE AGENCIES
- ONGC
- ISRO
- 9 MARITIME STATES& 4 U/Ts
- STATE MARINE POLICE
- INTERMEDIATE & MINOR PORTS
- STATE MARITIME BOARDS
- FISHERIES

MARITIME GOVERNANCE

- **LARGE NO OF STAKE HOLDERS IN THE COUNTRY**
- **LACK OF SYNERGY**
- **CIVIL SERVANTS LACK MARITIME DOMAIN KNOWLEDGE**
- **FEDERAL STRUCTURE CREATES PROBLEMS OF ITS OWN**
- **NOT ALL STATES- APPRECIATE THE THREAT FROM THE SEA. BELIEVE IT IS CENTRE'S PROBLEM .**
- **SOME STATES YET TO SET UP MARITIME BOARDS**

CONCLUSION -THE WAY AHEAD

- **CURRENT GOVERNANCE STRUCTURE NEEDS TO BE REVAMPED TO INCLUDE MARITIME DOMAIN**
- **COASTAL SECURITY BILL 2013- PUT UP TO THE PARLIAMENT BY NAVY /CG STILL PENDING.**
- **A NEW CADRE OF SECURITY PROFESSIONALS REQUIRED IN CIVIL SERVICES**

CONCLUSIONS-WAY AHEAD

- **NEED FOR COASTAL SECURITY WILL GROW WITH IMPENDING EXTENSION OF EEZ (200NM -350NM) , SAGARMALA & BLUE ECONOMY**
- **ECONOMIC COST OF BREACH OF COASTAL SECURITY CAN BE HUGE**
- **GREATER ATTENTION TO MARITIME LAW . LAW UNIVERSITIES DO NOT GIVE ADEQUATE IMPORTANCE TO MARITIME LAW**
- **.MARITIME COURTS NEEDED**

CONCLUSION -WAY AHEAD

- **COUNTER TERRORISM IN THE COUNTRY IS HEAVILY POLICE ORIENTED**
- **INDUCTION OF COAST GUARD AND NAVAL OFFICERS REQUIRED**

CONCLUSION –WAY AHEAD

- NODAL AGENCY REQUIRED
- BJP GOVT ANNOUNCED IN 2014 SETTING UP OF A ‘NATIONAL MARITIME AUTHORITY’ -(NMA) . SIX YEARS LATER , NO PROGRESS . NEEDS TO BE IMPLEMENTED EARLY

ON THE PROWL - HAPPY HUNTING



2016- CHINA CAPTURES
UNDERWATER DRONE FROM USS
BOWDITCH IN PHILLPINE WATERS



MARITIME MEDIUM- FACILITATOR

- SEAS – TRANS-NATIONAL NATURE
- MEDIUM OF SEAS PERMIT **CONNECTIVITY ,COMMERCE AND CULTURE**
- MAKE NEIGHBOURS OF DISTANT COUNTRIES
- SHIPS –MOBILITY-500 NM IN 24 h IN ANY DIRECTION - **REACH AND SUSTENANCE**
- PRINCIPLE OF FREEDOM OF THE SEA – **MARE LIBERUM**
- AVOID SOVEREIGNTY TRIP WIRE - KEEPING OUTSIDE 12 NM TERRITORIAL WATERS