

PHYSICAL GEOGRAPHY

1995

- Meteor - celestial body that has entered earth's atmosphere from outer space
⇒ Marx comet = comet w/o a tail
- BRs -
 - Tropical and temperate marine
 - ↳ wet & dry
 - ↳ rainy
 - ↳ semi arid
- Willy willy - cyclone NW Aus
- Highest mean elevation of - Antarctica - among all continents

1996

- Atmospheric layer - deflection of radio waves - ionosphere
- Areas near equator receive rainfall throughout year - high temp and high humidity cause convectional rain
- Mangroves are specialised forest of tr and subtr. bordering sea coasts - stabilise shoreline and acts as bulwark against encroachments by sea
- Diamond ring - only along peripheral regions of totality trail during solar eclipse

1997

- Change in regular direction of ocean currents in Indian Ocean = due to monsoon drift
- Daily weather isobars = isopleth
- Rock pieces around sun and between Mars - Jupiter = asteroids
- IST at Intl Date line
- Nearest to ~~sun~~ earth - sun
 - Polaris
 - Alpha Centauri
 - Sirius

- Presence of life on Mars - occurrence of ice caps and frozen water
 - atmospheric composition
 - thermal conditions
 - ozone occurrence
- Hot dry summers, mild moist winters, reversal of winds - USA - California
 - Argentina
 - S Africa, Mozambique
 - S. Aus -

1998

- Asteroids [rocky debris vary size, small to 1000km] Jupiter and Mars
- Rivers -
 - St Lawrence - USA, Lake Ontario → ^(N) Gulf of St Lawrence ^(near N. Atlantic)
 - Orinoco - Venezuela - Pacaraima mts → ^(N) Orinoco delta - ^{part of} Spain
 - McKenzie - McKenzie mts - (Canada) → ^(N) McKenzie Bay ^(n. Arctic ocean) ^(Beaufort sea)
 - Amazon - Andes - Peru, Ecuador, Colombia, Venezuela, Bolivia, Brazil, → Atlantic ocean
 - Yukon - L Canada → Alaska → Bering sea
- Layers of atmosphere
 - Estuaries possess distinct blooms of excessive growth of a pigmented dinoflagellates - red tides
 - Black tides - due to oil spill pollution
 - Sea tides - regular rise and fall
 - sea flowers - aka sea anemones - due to presence of flowing tentacles and glowing colours, they are not plants, but animals belonging to cnidaria
- China type -
 - Equatorial -
 - Hot desert -
 - Monsoon -

heterotrophs

- freshwater
- marine
- hydra
- jellyfish
- corals
- slapens

• Planets

- smallest - Pluto
- largest - Jupiter
- second from sun - Venus
- nearest to sun - Mercury

1999

• Andes, Brazilian shield, Guyana highlands, Amazon basin

• Coal - highest percentage - Anthracite

- combustible, black / brownish sedimentary rock,
- carbon made

- low Gross calorific value in India than intl reserves
(heat value)

- Third party sampling - quality monitoring

- Types in India

- Anthracite - high % with high % of fixed carbon -
hard, brittle, lustrous
- J&K

- Bituminous - medium grade, high heating capacity,
electricity gen & mostly used

JH -

OD -

WB -

CG -

MP -

- sub-bituminous [black, dull
[higher heat than lignite

- Lignite - lowest grade, least carbon content

RJ -

TN -

J&K -

- Reserves - OD > JH > CG > WB > MP

TL, MH, BR, AP, UP, MG, AS, NG, SK, AR

- High sulphur coal - ~~AS~~ MG > AS > AR > NG

- Coking coal - coal used to produce good quality coke -

↳ heating coal in absence of O₂ at v. high temp to
drive off volatile compounds of coal → to gain
hard, strong, porous high carbon content

JH > MP > WB > BR

- Non coking coal - high ash, used in TPP as steam coals

OD > ~~JH~~ EG > JH

- WB, BR, MP, UP, MH, AP, TL, AS, SK

- CIL - target of covering 100% coal dispatch under

Third party sampling $\Rightarrow$ $\downarrow$ pollution, $\uparrow$ efficiency, cheaper.

✓ power gen in TPP

✓ steel prodⁿ - coking coal - CO, CO₂

✓ synthetic fuel by gasification and coal liquefaction

✓ alumina

✓ paper manufacturing

✓ chemical and pharma industries -

- coking $\Rightarrow$ coal tar pitch, NH₃, Hyd. sulphide, pyridine, hydrogen cyanide, carbon based material

* UTTAM portal - coal quality monitoring - Mo Coal

Residues $\Rightarrow$ Syngas
[slag] $\Rightarrow$ CO, H₂, CH₄, CO₂, H₂O
[char] $\Rightarrow$ $\uparrow$ O₂

$\Rightarrow$ into liquid fuels or petroleum
 $\rightarrow$ high temp and H₂
 $\rightarrow$ $\uparrow$ O₂

• Earth origin from gases & dust particles - O Schmidt

• Ocean currents - location

• Ocean tide - maximum at - earth moon sun at straight line, spring tide

• Timber types -

Cedar	Douglas fir	mahogany	teak
Canada	Mexico	Honduras	Myanmar

2000

- First light of sunrise by India in new millennium -
92° 30' E
- Katchal Is - A&N Island
- Tides - navigation & fishing
 - prevents siltation in harbour
 - high tides - enter / leave harbour
 - Kandla & Diamond harbour - tidal ports
- Roaring forties - S. hemisphere - X N.
40° S
 - great strength & constancy
 - NW to E
 - overcast skies, rain, raw weather

2001

- Sudden fall in barometric reading - stormy weather
- Earth is spherical - 1st by - Aristotle
- Stars rise perpendicular to Horizon - equator
- Sedimentary rocks formation
- Volcanic eruptions do not occur in - Baltic sea -
basaltic rock transported by glacier
- Caribbean sea
- Mediterranean sea
- Black sea
- Caspian sea

- Soil erosion process - splash → sheet → rill → gully
- Neap tides - lower than high tide,
 low tide higher than usual
 Every 7 days
 perpendicular sun, moon, earth

2002

- sun's halo is produced by refraction in - ice crystals in cirrus clouds
- ocean currents - slow & fast
 - ✓ maintain heat balance
 - ✓ set in motion primarily by winds
 - ✓ affected by ocean configuration
- Equatorial regions - ~~no~~ ^{two} seasons -
- Mediterranean - rain in winters
- China - rain throughout year
- Tr. highlands - vertical zonation of climates
- Decreasing albedo - Tundra > Taiga > Tr deciduous > Tr evergreen
- 60°-65° - sub polar low - surface air spreads outward
- surface wind spiral inward upon centre of cyclone - air descends
- Thunder cloud - due to -
 - high temp & humidity
 - vertical winds
 - orography and pressure
 - condensation
- Weak Indian monsoon - El Nino SO
 - La Nina - strong monsoon
 - e. jet stream
 - greenhouse @ global level
- Lagoon lakes - Ashtamudi, Chilika, Pulicat
 - KL OB AP
- Periyar - mullaperiyar dam - artificial lake
- solar system - earth is densest of all planets in our solar system.

2003

- Moisture ~~be~~ in atmosphere is related to latitude - as amount of moisture holding capacity is related to temp
- Tropical rainforests - heavy leaching - requires chemical fertilisers for cultivation
 - primary productivity of tr rainforests > temp. forest
- Rainfall in areas between 5° - 8° near equator - high temp & high humidity cause convectional rain in afternoon
- Forest area -
 - Temperate coniferous - highest
 - temp deciduous
 - tr monsoon
 - tr rainforests
- Planet that takes max time to revolve around sun - Jupiter

2004

- Thickness of atmosphere is max at equator - high insolation & convection currents

2005

- St Helena - USA
 - Japan -
 - Crêve -
 - Philippines -
- Same face of moon is always presented to earth because - moon's rotation & rev around earth is same
- Venus - human life is highly improbable - due to high CO_2 level - greenhouse warm effect
- Wind patterns in N hemisphere - clockwise
 - S h " - anti clockwise
 - due to Coriolis effect

• Balearic Islands - Mediterranean sea

→ Baltic sea

→ Black sea

→ North sea

- Capitals - Bahamas, Costa Rica, Nicaragua, Dominican Rep.
- Axis of earth's magnetic field - $90^\circ - 90^\circ$
 - magnetic pole in N - N. Canada
 - equator - Thumba (S India)
- Total land area of earth - 1475 lakh sq km
 - 1:3 = land: ocean
 - Pacific - largest

2006

- Diamantine trench - Indian ocean
- Orbit around sun - Mars takes more time
 - Mars diameter < earth

2007

- distance from sun & earth - 150×10^6 km
- 30° N and S - horse latitudes - HP belt
 35°
- Annual temp range - Atlantic > Pacific
N hemisphere > S hemisphere

2008

- Albedo determines reflected light - visual brightness
 - earth > mercury
- Population
- Planets b/w Mars & Uranus

2009

- Largest no of natural satellites / moon -
Jupiter Ganymede
- Core is made up of - iron & nickel

2010

- Freshwater = 1% of earth surface
 - ↳ polar ice caps & glaciers - 68%
- Natural forest - humid climate, 29-31°C, rain throughout year - $\rightarrow$ rainforest
- El Niño Modoki - c pacific ocean, more hurricanes in Atlantic
- El Niño - c pacific ocean, less hurricanes in Atlantic
- More reflects back - land covered w/ fresh snow
 - $\rightarrow$ prairie land $\rightarrow$ sand desert $\rightarrow$ paddy crop
- Warm dry climate, mild & wet winter, evergreen oak - mediterranean
- Wind deflects to left in s hemisphere = rotation of earth (Coriolis force)

2011

- Tropical rainforest does not regenerate quickly as compared to tropical deciduous -
 - deficient soil nutrients
- Ionosphere facilitates radio communication -
 - charged particles
 - long wavelength of radio waves $\rightarrow$ ozone - stratosphere
- La Niña and El Niño - difference
- asteroids and comets
 - ↳ small rocky planetoids
 - ↳ b/w Mars & Jupiter
 - ↳ beyond neptune (Kuyper belt)
 - ↳ frozen gases held together by rocky & metallic material
 - ↳ tail
- Westerlies are stronger and persistent in southern than northern hemisphere because -
 - less landmass
- Formation of desert belt - at Africa & Eurasia -
 - subtr HP
 - cold ocean currents

- Jet aircrafts fly smoothly in lower stratosphere bcz -
 - no clouds/water vapour
 - no vertical winds

2012

- Evidences of continued expansion of universe -
 - ✓ detection of microwaves in space
 - ✓ redshift phenomenon in space = red shift of galaxies was directly proportional to distance of galaxy from earth by Hubble
- asteroids movement
- supernova explosions
- Factors influencing ocean currents -
 - earth rotation
 - density of ocean water
 - air pressure and wind
- Temp decreases with height because -
 - ~~earth~~ atmosphere is heated only from earth surface
 - less dense air above
- Tropical savannah characterises - dry & wet definite season

2013

- Abyssinian plateau - (Ethiopia) NE Africa
- Atlas mts - NW Africa
- Guyana highlands - N.S America
- Okavango basin - S. Africa

- Variation in length of day and night - season to season - due to
 - revolution on a tilted axis
- Freshwater in ice caps & glaciers, then - groundwater
- Dynamic changes on earth -
 - ✓ electromagnetic radiation
 - ✓ geothermal energy
 - ✓ gravitational force
 - ✓ plate movements
 - ✓ rotation
 - ✓ revolution

- most imp fishing grounds - where ocean currents meet
- Eq. forests -
 - tall, closely set canopy
 - epiphytes
 - large no of species
- Temp in interior continents are more than coasts bcz - thermal diff of land & water
- Climate is extreme, scant rain, nomadic herders -
 - ↳ Asian steppe

2014

- Influence on organism evolution -
 - continental drift
 - glacial cycles

2015

- Westerlies - 30° - 60° N, S
 - moist air mass in NW India
- Tides occur due to -
 - gravitational force of sun, moon
 - centrifugal force of earth
- clear morning, dark clouds in afternoon, rain with thunder & lightning - equatorial
 - monsoon, savannah, mediterranean
- cyclone does not originate in S. Atlantic and SE Pacific -
 - low sea surface temp - cold currents
- eastward flow of equatorial counter current -
 - earth's rotation on axis

2016

- Brahmaputra tributaries - Dibang, Kameng, Lohit

2017

- Indian ocean dipole -
 - (+) = greater monsoon
 - (-) = less monsoon
 rains
 - ↳ Indian ocean
 - (warm) and then (cold)
 - (-) (+)
 - ↳ eastern Ind. ocean

2018

- Barren Island - active volcano in India
 - last erupted 1995
- Agr soils -
 - irrigation over time leads to salinization
 - high organic matter increases water holding capacity
 - sulphur cycle - soil
- Sand mining in riverbeds -
 - increased salinity
 - groundwater pollution
 - lowered water table
- carbon fertilization - increased plant growth due to increased concentration of CO_2 in atmosphere
- Earth's magnetic field - reversed every few years
 - no O_2
 - modified by organisms

2019

- on 21st June - sun does not set below Arctic circle
- Methane hydrates -
 - released due to global warming
 - found in Arctic tundra & under seafloor
 - oxidises into CO_2 after decade or two
- Dewdrops do not form on cloudy night bcz -
 - clouds reflect back earth's radiation

2020

- Ocean Mean Temp - 26°C , Jan - March, 69m deep
 - assess monsoon
- Jet streams - N and S
 - only some cyclones develop an eye
 - temp inside eye is 10°C less than surroundings

WORLD PHYSICAL

1995

- Location -
- C Asian nations - ~~1995~~
- Greenwich meridian
- Original home of Gypsies - India
- Chechrenya region - Asia - due to separatist movements from Russia
- Arakan Yoma extension of Himalayas is located in - Myanmar
- Naga hills, Chin hills, Patkai range

1996

- Durand line - Af & Pak
- McMohan line - India and China
- Young husband expedition to Tibet
- Boundary commission (1947)
- Ecological hotspot - W. ghats
- ↳ under WPA 1972
- Syria
- Jordan Iraq
- & Arabia
- Palk bay lies between -
- Gulf of mannar & BoB
- Gulf of kachh & khambhat -
- Gia range
- Lakshadweep & Maldiva - 8° channel
- A & N - 10° channel
- Jaffna - SL - location
- NW of elephant pass
- below palk strait
- ~~East~~ east of Gulf of mannar

1997

- 50% of world population - 20°N - 40°N
- Nordic arians, austrics, negroids, mongoloids
- River

Chindwin → Irrawaddy
China
Myanmar
BoB

Salween
China
Myanmar
Thailand
BoB

Chao paraya - Thailand
↳ Gulf of Thailand
Mekong (Lacang jang)
China
Myanmar
Laos
Thailand
Cambodia
Vietnam → S China sea

Canada

||

- Aceh in NW to Torres strait in east - Indonesia
- Laos and New Guinea
- Japan - Tsushima strait / sea of Japan & Pacific
- Le Perouse strait

→ Philippines - Luzon strait in n, Bashi channel

- World's largest producer of fuel wood - Russia
- Major importer of Bauxite ^{from} India - Canada
- Forest fire in Indonesia in 1997 caused by -
 - ⇒ Tuguhalli forests - KA
 - ⇒ Noel Kempff Mercado NP - Bolivia, WHS
- IST - 15° = 1hr

1999

- Ports -
 - Caracas -
 - Maracaibo - Venezuela oil port
 - Maracay -
 - Guayaquil -
- Copper deposits - Chile - world's largest deposits of porphyry copper.
- Major cities -
 - Lagos - Nairobi - Kuala Lumpur - Darwin
 - Nigeria Kenya Malaysia Australia
- Mestizo - Indian & European in Latin America
- Mulatto - African & European
- Meiji - Japanese & "
- Mau Mau - Kenya
- Volcanic mountains -
 - Mt Rainier - USA
 - Ethna - Italy
 - Parícutin - Mexico
 - Taal - Indonesia

2000

- Yugoslavia consisted of -
Slovenia - Croatia - Bosnia - Yugoslavia
- Boundary b/w Tanzania & Uganda - Lake Victoria
- Malawi - Tanzania, Malawi, ~~Burundi~~ Mozambique
- Zambezi - Zambia, Zimbabwe
- Chad - ~~Chadland~~ - Niger - Chad
Nigeria

2001

- Marsupials - Australia
- Föhn - Alps
- Sammun - Kurdistan
- Santa Ana - California
- Zonda - Argentina
- C Asian capitals
Turkmenistan - Ashkhabad
Kyrgyzstan - Bishkek
Tajikistan - Dushanbe
Tashkent - Uzbekistan
- BR - Gulf of Mannar
- Ganga Action Plan - National River Conservation Plan
- ENVIS - decentralized info system
- National museum of natural history - non formal education & conservation

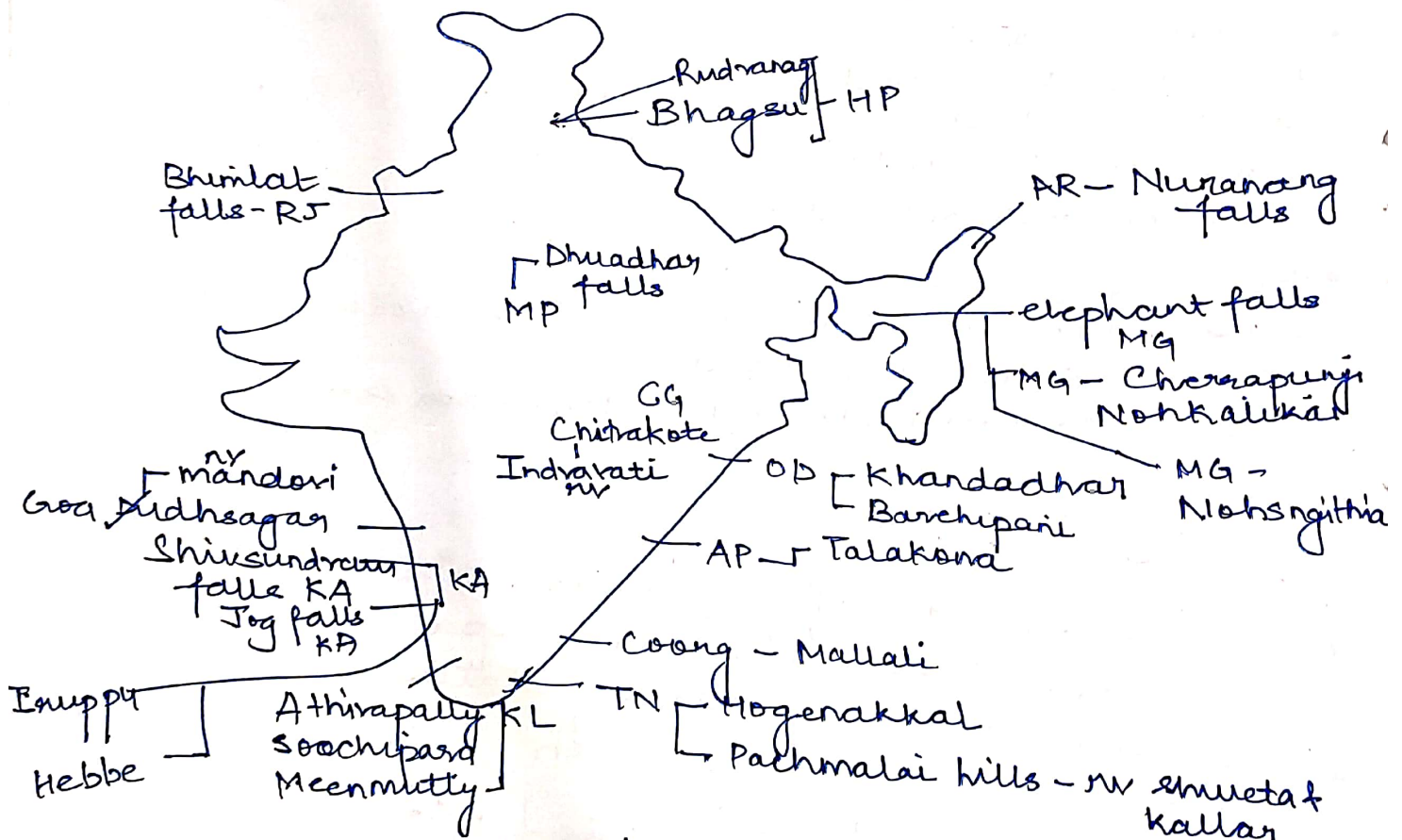
2002

- Descending order of population size -
Indonesia > Brazil > Russia > Japan
- Descending order of literacy status
SL > India > Pak > Bangladesh
- Adriatic sea as boundary -
- Italy Croatia
 Bosnia Herzegovina
 Montenegro
 Albania
- Aegean sea
Greece Turkey
 ↓
 Crete
- Socotra - Yemen Ind. Ocean
 Seychelles - Victoria - equator
Comoros
20°N - Mauritius -
 Port Louis
 Reunion - France

8 2003

- Victoria waterfall - Zambezi
- Amazon - Kaieteur falls - Guyana
- Missouri - Great falls (Black eagle, cotton falls, big falls)
- St Lawrence - montmorency (Quebec, Canada)
- Niagara falls - Lake Erie into Lake Ontario (USA)

WATERFALLS - INDIA



- Naina waterfall - Palamu TR
- Chandauli / Rajdari / Perdari - Chandraprabha WS - UP
- Valasampeta waterfall - Vizag -
- Thushagiri - KL - Chalupuzha river

- Highest life expectancy - Japan (2003)
- Macedonia - minority Albanians
Kosovo - minority Serbians
- Landlocked -
S America - Bolivia, Paraguay
- Caspian sea borders - (KRATI)
Russia Kazakhstan
Azerbaijan Turkmenistan
Iran

2004

- Mekong does not pass - Malaysia
- Latvia - borders -
Estonia
Latvia Russia
Lithuania Belarus
- Black sea Red sea Yellow sea Caspian sea
Bulgaria Eritrea China Kazakhstan
- Costa Rica (N.Am.)
Panama borders - Caribbean sea
Cocos Is Colombia (S.Am.)
(Costa Rica)
[Pacific]

2005

- Lithuania -
Russia Belarus
Poland
- Pakistan - N to S - Peshawar - Islamabad - Gujranwala - Multan
- River
Manzanarez - Madrid
Spree - Berlin
Seine - Paris
Potomac - Washington
- Great Britain - England, Wales, Scotland
UK = + Ireland
- ⇒ [Shetland Is
Glasgow
Dublin
London
Eng. Channel - Channel Is (UK)
France]

- Ghana
- Itaipu dam - ~~on~~ Parana - Brazil & Paraguay
- Percentage of earth's land -
Africa > N America > S America > Europe

2006

- Bermuda triangle - S Florida & Puerto Rico
- Macedonia - contested between - Bulgaria & Greece
- Huangpu river - Shanghai
- HaiXongding river - Beijing
- Saigon river - Ho Chi Minh
- Pasig river - Manila
- Leading producer of uranium -
Kazakhstan > Canada > Aus > Niger > Namibia > Russia
- Terrestrial mile < nautical mile
- Harmattan - W Africa - dry dusty
- Iberian peninsula - Portugal, Spain, Andorra, Gibraltar
landlocked
micro state,
sovereign,
bordered by
France
- Equator crosses -
- Colombia, Kenya, Indonesia
→ Cancer - Brazil
- Above equator - Venezuela, Malaysia
- Below equator - [Sudan, Ethiopia, Zambia]
- → Capricorn - ~~Zambia~~
- leased to Russia
- Baikonur - Kazakhstan } space launch facility
- Kourou - French Guiana
- Borobudur - Indonesia
- Cannes - France
- - Russia
- Myanmar borders - India, China, Bangladesh, Thailand, Laos, Cambodia, Vietnam

2007

- Copacabana beach - Brazil (Rio de Janeiro)
- Buenos Aires - mar del plata, piramar - Argentina
- Hawaii islands - Kanapali (Maui)
- Valletta - Malta
- Same clock time - London, Accra (Ghana), Lisbon
x Ethiopia
- Bangkok - Chao phraya (Mekong) - Thailand
- Phnom penh - Mekong - capital of Cambodia
- Hanoi - Red river - Vietnam
- Yangon - Irrawaddy - Myanmar
- Longest rivers -
Amazon
- Amur - Shilka river ~~elbow~~ borders Russia & China → Sea of Okhotsk
- Lena - Baikal mts → Russia → Laptev sea (Arctic)
- Congo - Lake Tanganyika, Chambesi, → Atlantic
E African mts, Lake Mweru
- UK and France connected by - Dover strait - Eng channel
- Denmark strait - cataract undersea waterfall
- Strait of Gibraltar - Spain & Morocco
- Davis strait - Canada & Greenland, Labrador & Baffin Bay
- Greenland (Arctic) and Fanning sea (Atlantic)
- Largest coral reef - Australian coast

2008

- Malta - Mediterranean sea - N African coast
sovereign - Balearic Island
- Nearest to equator - Singapore
Manilla
- Ja Colombo
- - - Singapore - -
- Jakarta
- Nearest to Intl Date Line - Bering strait
- Malacca → Florida strait → Gibraltar

• Moldova borders - Ukraine and Romania only

• UAE - Emirates - 1971 @ Abu Dhabi

Abu Dhabi

Dubai

Sharjah

Rajman

Umm Al Quwain

Fujairah

Ras Al Khaimah - 7th - 1972

- borders

Qatar

UAE

S
Arabia

Oman

• India & China → ~~decreases~~ population - USA, Indonesia

2009

• Tropic of Capricorn passes -

Chile

Argentina

Paraguay

Brazil

(CAP-B)

Namibia

Botswana

2 Africa

Mozambique

Madagascar

(NBS-IM)

Aus

• Berlin, London, New York, Vienna
Rhine Thames Hudson Danube
Spree, Elbe

• Highest population density - Asian nation - India

• Great Victoria desert - Australia

Grand Canyon - USA

Lake Winnipeg - Canada

S. Alps - New Zealand

• Cape Canaveral - Florida

Space site @ Virginia - Wallops Island, Delmara peninsula
Carolina ← N
S -

• Uranium reserves - Australia

• New capital^{adm} of Malaysia - Putrajaya

2010

- Strait of Malacca crosses [Malaysia + Sumatra
Singapore]

2014

- Turkey is located between - mediterranean & black sea
- borders - Bulgaria | Syria | Georgia
Greece | Iraq | Armenia & Azerbaijan
- Chechnya - Russia | Iraq -
Darfur - W Sudan | Mali -
Swat valley - Pak
- SE nations - N → S
[Hanoi
Bangkok
Singapore
Jakarta]

2015

- Mediterranean borders -
X Jordan

Turkey
Syria
Lebanon
Israel
Palestine
Gaza

2016

- TPP - countries

2017

- closest to Great Nicobar - (Sumatra)
S.L. Java

Borneo

- Mediterranean borders

2018

- Drying rivers - Aral sea

2019

- Adriatic sea - Albania
Black sea - ~~KRAZI~~
Adriatic - Croatia

→ KRAZTI
Caspian sea - Kazakhstan
Mediterr. sea - Morocco, Syria
Red sea - ESESY

