

# Issues Related to Delineating the Outer-Limits of Myanmar's Continental Shelf in the Context of Article 76 of the 1982 United Nations Convention on the Law of the Sea

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# Introduction

- The Continental Shelf is primarily important for oil and gas exploitation.
- Myanmar demonstrated its interest in the issue of CS delineation since the inception of UNCLOS III.
- Myanmar voiced the importance of CS for its national interest.
- Myanmar enjoys favorable geographical & geological circumstances.

# Definition of Article 76 of UNCLOS

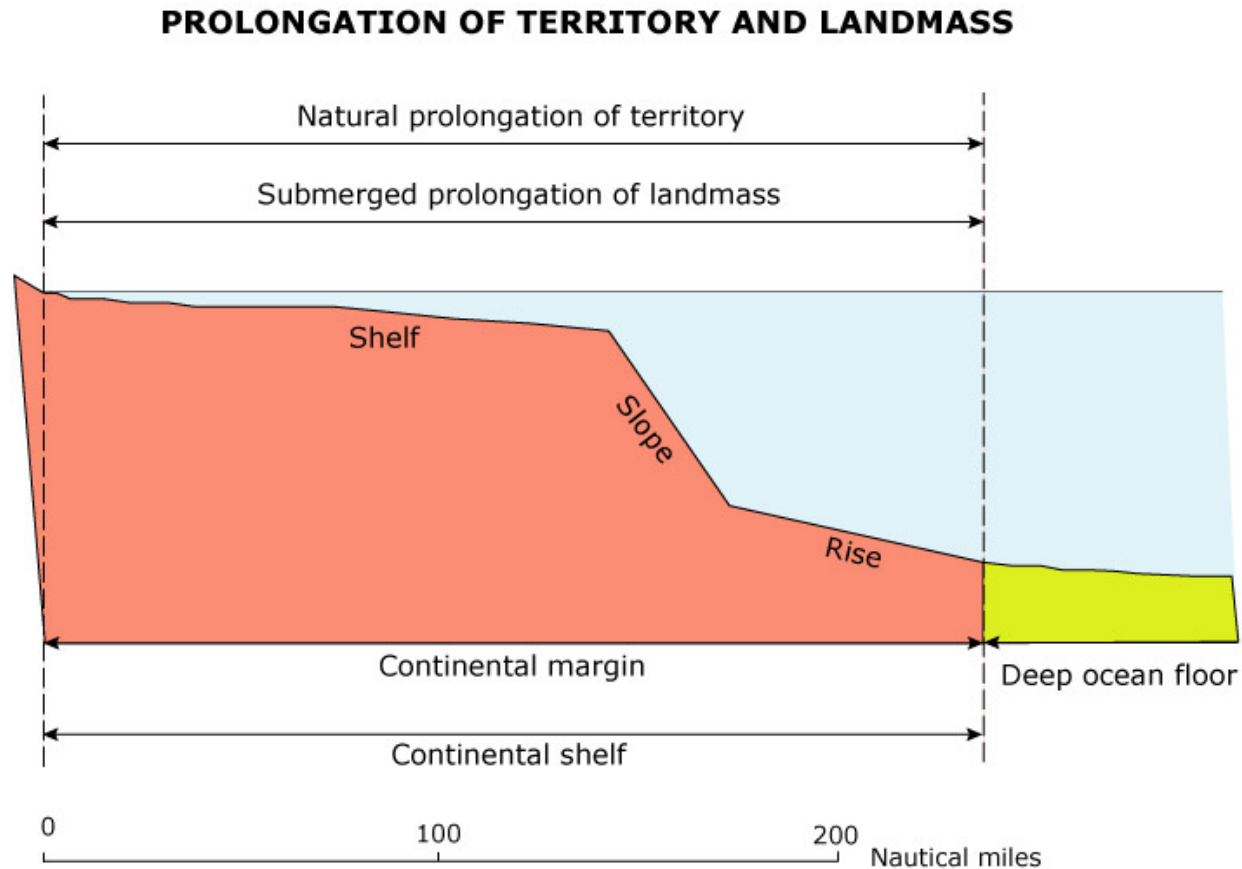
- The continental shelf of a coastal State comprises the seabed and the subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin.

## Logic of Article 76

- Founded on two distinction between the terms:  
“ the continental shelf” and “the continental margin”

Article 76 (1) defines CS of coastal State in terms of natural prolongation of coastal State's land territory, outer edge of the CM, a 200 M of distance criteria.

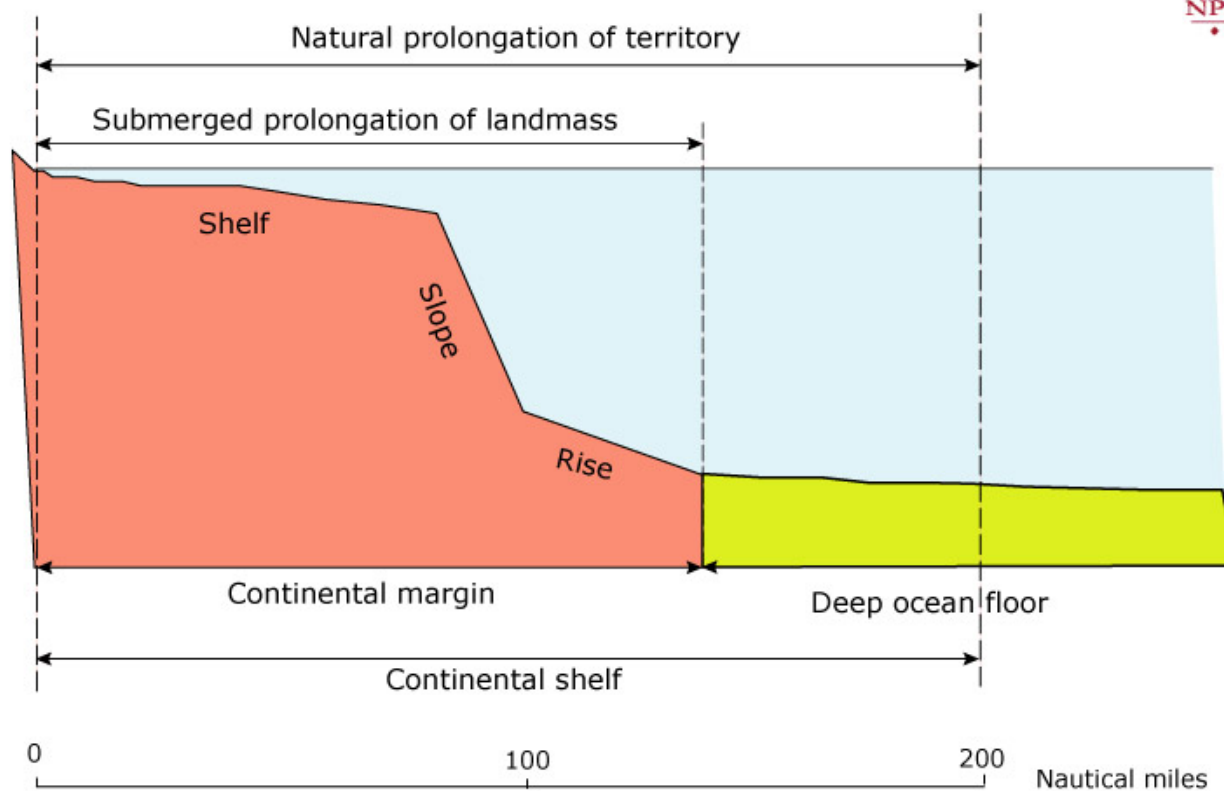
# Principle of Natural Prolongation



## Definition of Article 76 (Cont.)

- In cases, the outer edge of the continental margin is  $< 200\text{M}$ , from the baseline, the CS extends beyond the CM and up to that distance. In this case, the CS includes a part of “deep ocean floor”.

## PROLONGATION OF TERRITORY AND LANDMASS



# Entitlement of a Claim

- In case of the CS, basis is the distance from the coast or natural prolongation of land territory to the outer edge of the CM.
- However, entitlement of the CS is not dependent on the establishment of the outer limits.
- If the margin is  $<200\text{M}$ , States may claim the seabed to distance of 200 M from baseline.
- If the margin is  $>200\text{M}$ , claims must be made as precise formula recommended by the CLCS.



# Entitlement to a claim (Cont.)

- In this case, the State is able to claim sovereignty over the seabed and subsoil of the CM beyond EEZ.
- In most circumstances, the presence or absence of a rise can be a deciding factor to determine whether the CM are >200M.
- Thus, the CM >200M are mostly found where the continental rise are well developed in Atlantic, Arctic and Indian Ocean.

# Areas of the world's Continental Margin

On geomorphologic terms, estimates that:

- 46,083 million square kilometers excluding the margin around Antarctic and arbitrary limit of 3000 m for the edge of margin.
- 82,6825 million square kilometers represents 22.9% of total oceanic area of 361,059 million square kilometers.
- Approximately 59 million square kilometers, is valid for 151 coastal States around the world.

# Areas of the world's Continental Margin (cont.)

- If the margins are equally shared by those coastal States, each would secure 390,700 square kilometers.
- Myanmar might be able to claim the average margin of 390,700 square kilometers.
- In the Bay of Bengal where Myanmar likely to make a claim along with India, Srilanka, Bangladesh and Indonesia is 414,000 square miles wide.

# Six main factors for a claim

1. The length of mainland coastline;
2. The configuration of the mainland coast;
3. The location of the coast on an ocean or a semi-enclosed sea;
4. The possession of islands;
5. The proximity of neighboring States; and
6. The width of the continental margin.

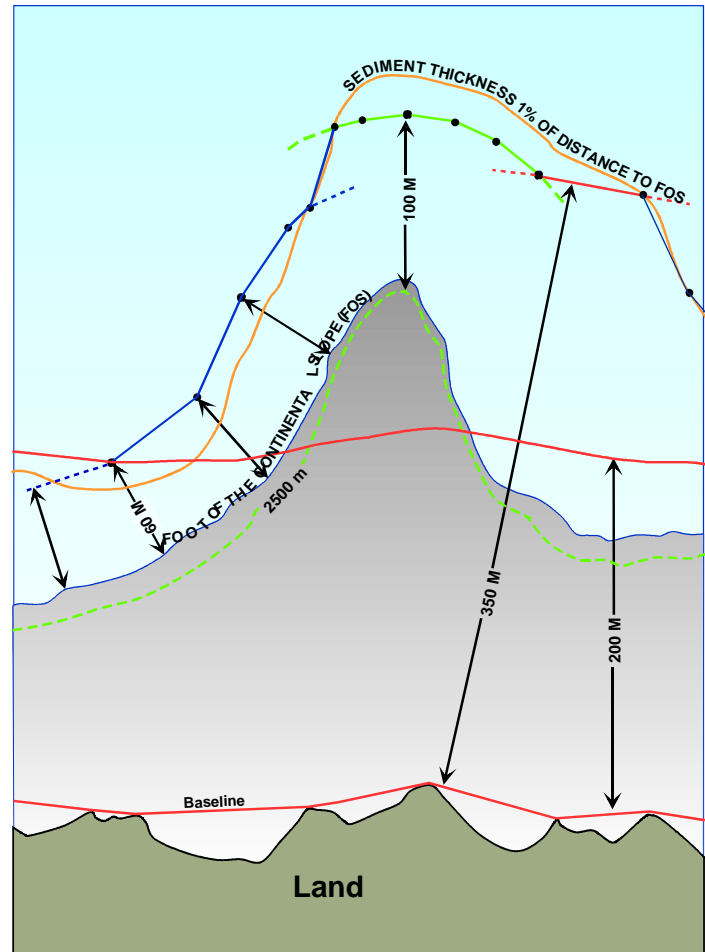
# Delineation principle

- Article 76(4)(a), Two formulae lines:
  - (i) A line delineated in accordance with para.7 by reference to the outer most fixed points at each of which the thickness of sedimentary rock is at least 1% of the shortest distance from such point to the continental slope: or
  - (ii) By reference to fixed points not >60M from the FOCS.

## Delineation principle (Cont.)

- Art.76(5) Two constraints: outer limit of the CS
  - (i) shall not exceed 350 M from baseline; or
  - (ii) shall not exceed 100 M from 2,500 m isobath, which is a line connecting the depth of 2,500 meters.

# Combined formula limit lines



# Hedberg & Gardiner formula limit lines

- Hedberg formula is designated as Distance formula according to Art.76(4)(a)(ii).
- Gardiner rule is known as Irish formula in conformity with Art.76(4)(a)(i), as Sediment thickness cum distance formula.



# Right of coastal States

- Art.76(1) establishes the right of coastal States to determine the outer limits of the CS by applying either the natural prolongation criteria or the distance criteria.

# Importance of the Continental Shelf

- According to Article 77(1) &(2) states that:  
The coastal State exercises over  
the continental shelf sovereign rights  
for the purpose of exploring it and  
exploiting its natural resources and  
If the coastal State does not explore or  
exploit its natural resources, no one may  
undertake these activities without the  
express consent of the coastal State.

# Importance of the Continental Shelf (Cont.)

- The CS is primarily important for natural resources such as oil and gas in addition to other mineral resources of living and non-living organisms.

# Determination of the Foot of the Slope

- A primarily feature for outer limits of the CS beyond 200 M.

- Article 76(4)(b)

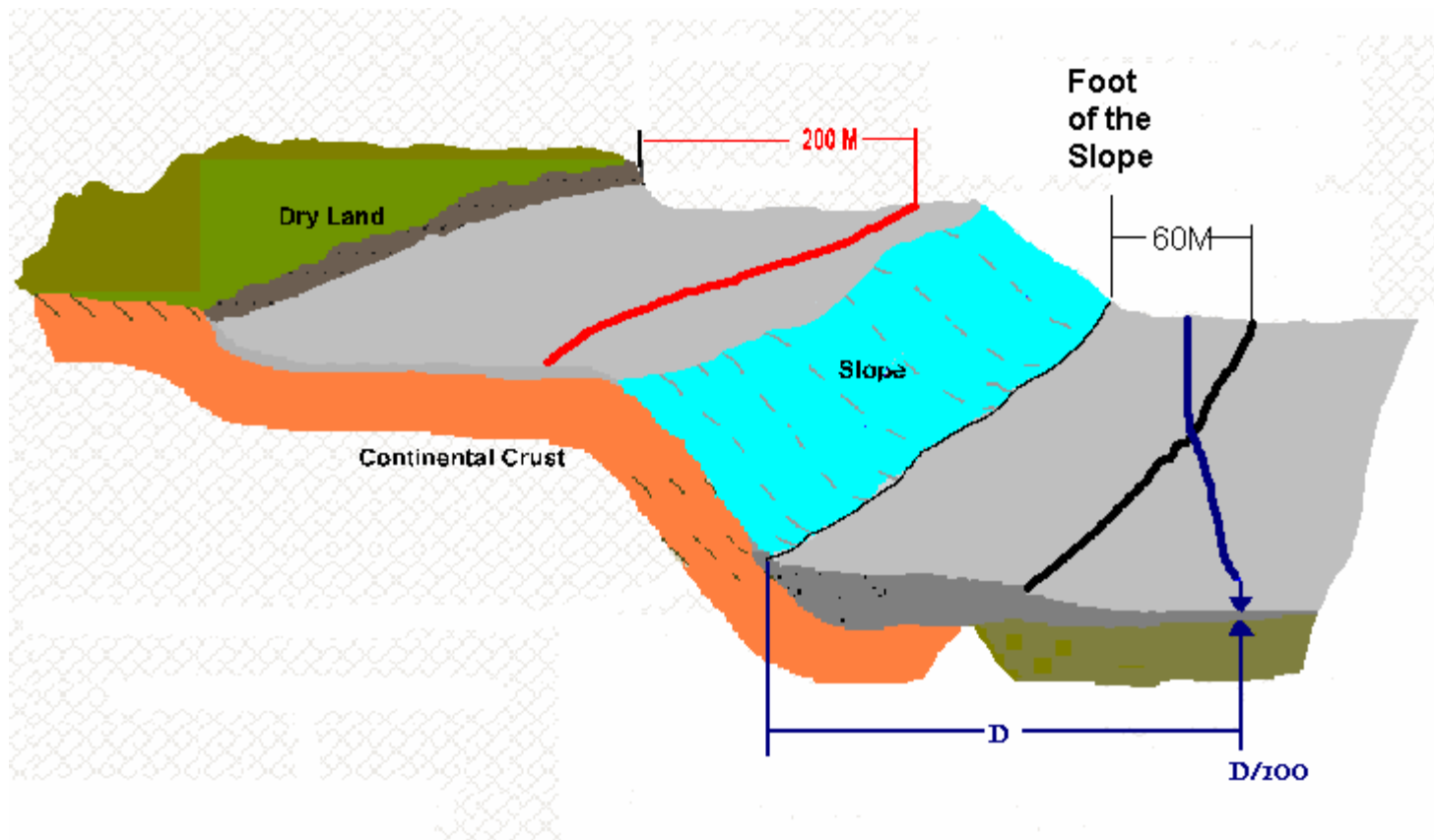
In the absence of evidence to the contrary, the FOCS shall be determined as the point of maximum change in the gradient at its base.

- However, coastal States are allowed to use evidence to contrary to the general rule when the maximum change in the gradient does not, can not locate reliably the FOS at its base.

# Determination of the Foot of the Slope (Cont.)

- Requirements to locate the FOS:
- Bathymetric and morphological evidences shall be applied whenever possible.
- The best geological and geophysical evidences available.
- Software to operate in the basis of seismic and bathymetric data collected.

# Foot of the Slope



# Application of Gardiner Rule

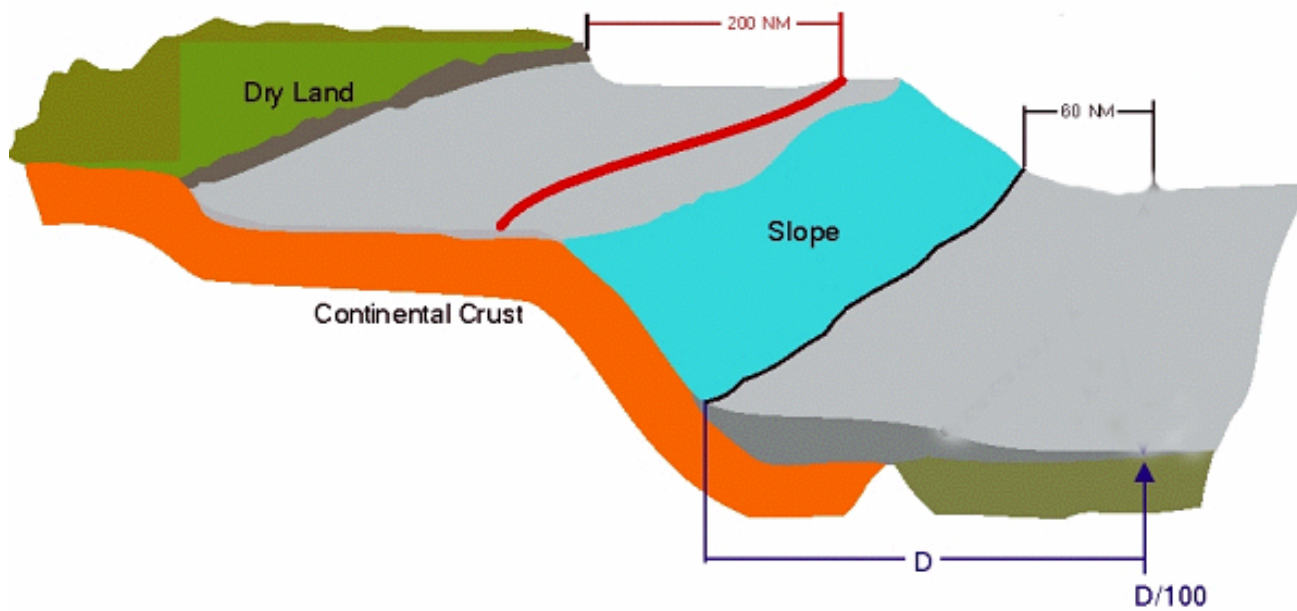
- The FOS is the main controlling feature.
- Morphological feature around it is possible to draw the FOS according to Art.76(4).
- The common envelope of the FOS is a basis for further extension of the CM.
- 1% sediment markers are computed from available seismic sediment-thickness data.

# Application of Gardiner Rule (Cont.)

- Connecting the constraint line 100 M from 2,500 meter isobaths to delineate the outer edge of the CS.
- Coastal State could retain under its jurisdiction a significant part of the Continental Rise.



## Determining the Outer Limit of the Continental Shelf



# Formula Myanmar shall apply

- Given geological and geographical condition, Myanmar shall be using the Gardiner Rule of 1% sediment thickness formula and the constraint line of 100 M from 2,500 meter isobaths.

# Criteria Myanmar base on its claim

- Natural prolongation of landmass or submerged prolongation of its territory is the property that allows Myanmar to extend its CS beyond 200 M.
- Myanmar regards the rocky and hilly islands in the Bay of Bengal as its submerged continuation of the outer fold ranges of the Rakhine Yoma.
- The presence of a large submarine slide at the base of the CS off the Patthain River in BB.

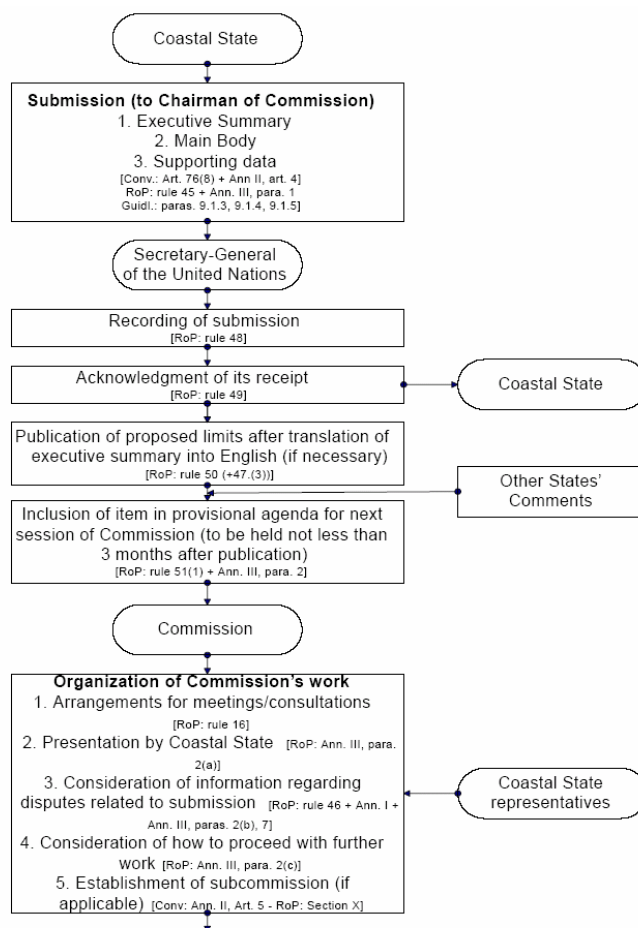
# Map of Myanmar showing Natural Prolongation in BB

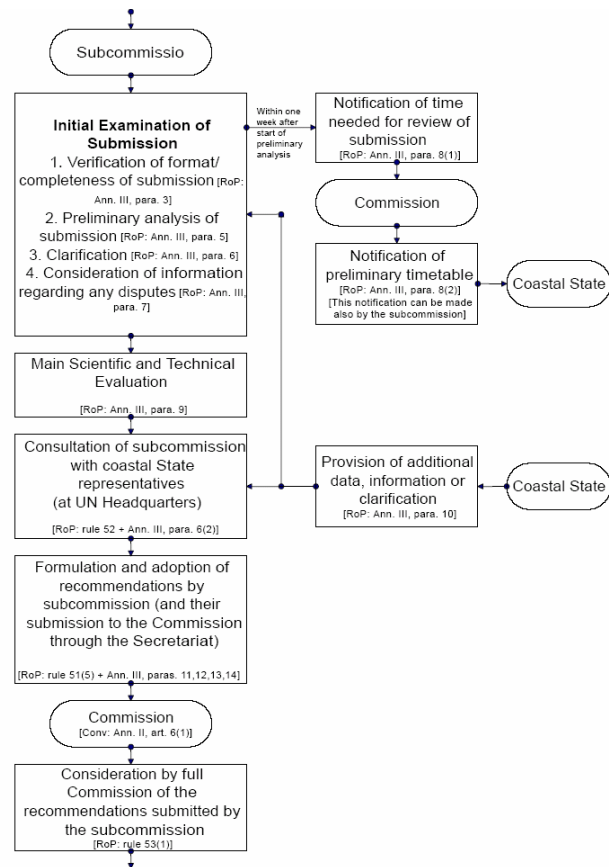


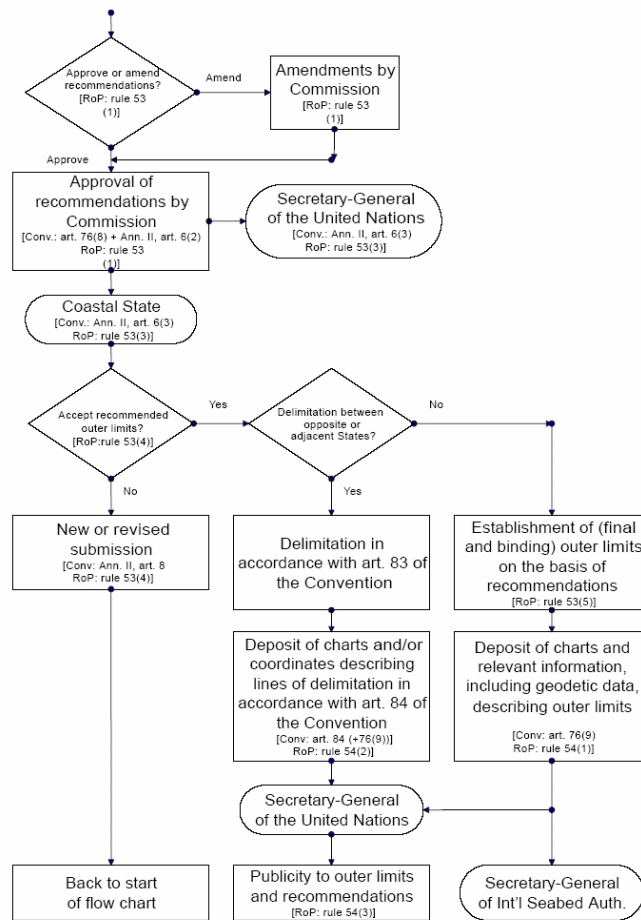
# Myanmar's submission to the Commission

- Formation of preparatory Committee
- Formation of technical sub committee
- Desktop study
- Data required
- Procedure to follow

# Steps taken by CLCS and Sub Commission









Thank you

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