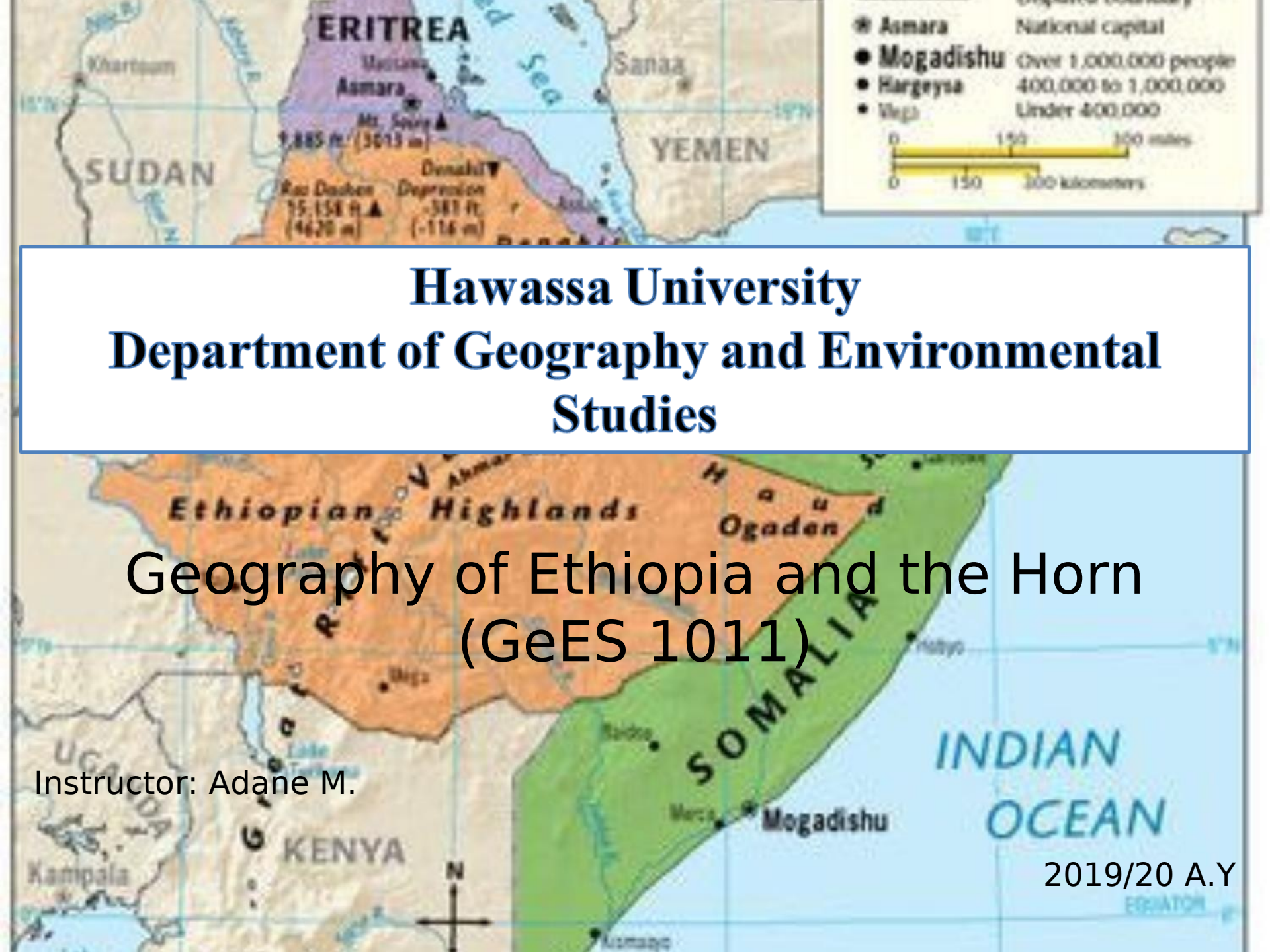


Hawassa University

Department of Geography and Environmental Studies

Geography of Ethiopia and the Horn (GeES 1011)

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2019/20 A.Y

Discussion Outline

- Meaning of Geography
- The Scope, Approaches and Themes of Geography
- Location, Shape and Size of Ethiopia and the Horn
- Basic Skills of Map Reading

CHAPTER ONE
INTRODUCTION

❑ Geography: Definition, Scope and Themes

Activity 1.1

1. Define Geography.

2. Could you mention the major themes of Geography?

3. Do you know where the Horn of Africa is located? What are the member states of the Horn of Africa?

4. Distinguish between astronomical and relative locations?

Cont'd ...

- Most people think that geography is only a study of place names, lengths of rivers, heights of mountains, names of countries, and capital cities of countries. However, it is much more.
- Geography does not have a single definition that is universally accepted.
- It is difficult to forward a definition acceptable to all geographers at all times and places because of the dynamic nature of the discipline and the changes in its scope and method of study.
- Ancient Greeks defined geography for the first time. They combined two words:
  - *Geo – which means earth*
  - *Graphic – which means writing*

Cont’d …

- Therefore, their definition of geography was *a description of the earth*.
- However, geography is more than just the description of the earth.
- Now this definition seems very general when we compare it to the scope of current geography.
- Commonly acceptable definition is "the study of the spatial distribution of both physical and human-made things and phenomena on the earth’s surface and the two-way interactions and interdependences between natural and human environments.”

Cont'd ...

- ✓ However, the following may be accepted as a working definition.
- ✓ Geography is the scientific study of the Earth that describes and analyses spatial and temporal variations of **physical**, biological and human phenomena, and their interrelationships and dynamism over the surface of the Earth.

1.1.2. The Scope, Approaches and Themes of Geography

- ✓ Geography is the science that explains:
  - the arrangements of various natural and cultural features on the Earth surface.
- ✓ It is a **holistic** and **interdisciplinary** field contributing to:
  - ✓ the understanding of the changing spatial structures from the past to the future.

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- In this regard, geography is said to have a greater scope than mere locations. It treats a wide range of phenomena on the planet earth.

- Generally, the geo-sphere is considered as geography's scope.

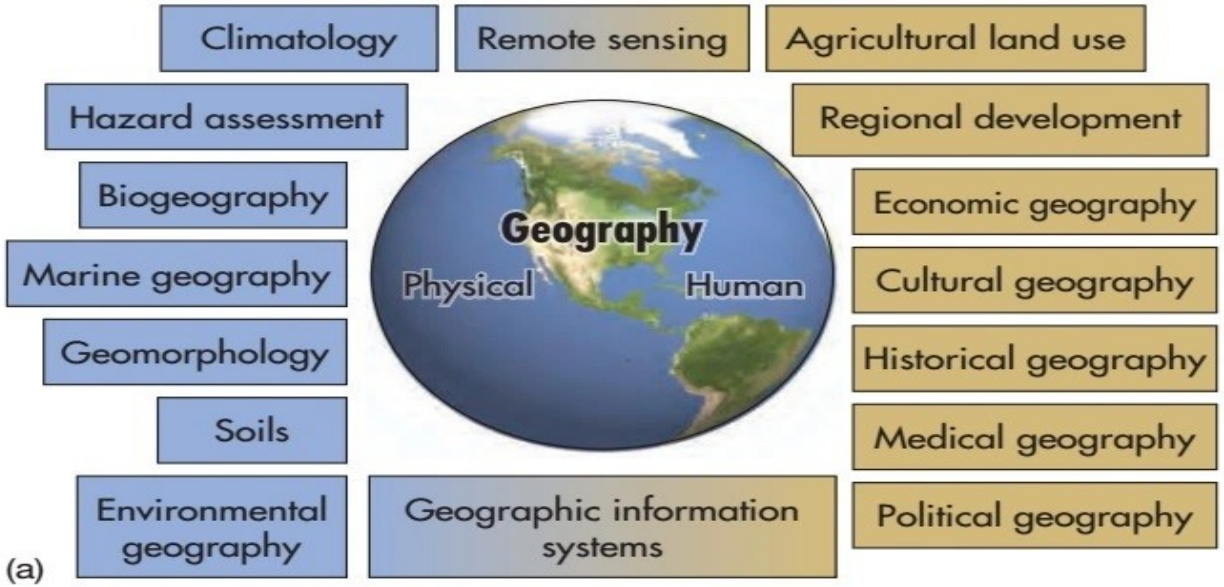
- The geo-sphere itself is made up of five sub spheres, namely the lithosphere, hydrosphere, atmosphere (troposphere), biosphere and anthroposphere

Cont'd …

Geospheres	Description	Geography's related area of study
Lithosphere	The solid part- i.e., the rock layers of the earth	Geomorphology, soil geography
Troposphere	The lower part of the atmosphere where weather changes occur	Climatology
Hydrosphere	The water surfaces of the earth including oceans, seas and lakes	Oceanography
Biosphere	The part of the earth that supports all sorts of life	Biogeography
Anthroposphere	The earth's cultural landscape	Cultural geography, population geography

Cont'd . . .

- ✓ In its scope, it ranges from the physical sciences of Astronomy, climatology, Geology through natural histories of Botany and Zoology to the human studies of Anthropology, Ethnology, Sociology and History.
- ✓ Geography can be approached by considering two continuums:



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- **The topical (systematic) continuum**: the study of one particular topic of physical or human analysis as it varies from place to place. Examples would include such topical approaches as Economic Geography, Cultural Geography, and Urban Geography.
- **The Regional Continuum:** The study of a particular region, both its human and environmental attributes. Geographers tend to focus their interests on certain regions, like East Africa or Africa, as an example.

Five Fundamental and Unifying Themes in Geography

- Geography has five basic themes namely location, place, human-environment interaction, movement, and region.

Cont'd . . .

✓ **Location**

Two types of location-

- Relative
- Absolute

- **Relative Location**: is based on the location of some physical or human created feature. Where something is located is based on the location of other things.
- **Absolute Location**: Based on a coordinate grid system that gives a precise location on the earth's surface. The most common coordinate grid system used is the **latitude-longitude coordinate** grid system found on most maps and globes.

Cont'd . . .

- ✓ **Place:**

– Place refers to the physical and human aspects of a location. This theme of geography is associated with toponym (the name of a place), site (the description of the features of the place), and situation (the environmental conditions of the place).

– Each place in the world has its unique characteristics expressed in terms of landforms, hydrology, biogeography, pedology, characteristics and size of its human population, and the distinct human cultures. The concept of "place" aids geographers to compare and contrast two places on Earth.

Cont'd . . .

- ✓ **Human-Environment Interaction**
- ✓ Humans have always been on ceaseless interaction with their natural environment.
- ✓ Human-environment interaction involves three distinct aspects:
  - dependency, adaptation, and modification.
  - **Dependency:** refers to the ways in which humans are dependent on nature for a living.
  - **Adaptation:** relates to how humans modify themselves, their lifestyles and their behavior to live in a new environment with new challenges.
  - **Modification:** allowed humans to "conquer" the world for their comfortable living.

Cont'd . . .

- **Movement**
- It entails to the translocation of human beings, their goods, and their ideas from one end of the planet to another.
- It includes:
  - The physical movement of people
  - Transport of goods and services
  - flow of ideas that allows the unification of the human civilization and promotes its growth and prosperity.
- **Region**
- Is an area of the earth's surface with similar characteristics.

Cont'd . . .

- ✓ Regions usually have more than one characteristic that unifies them. These may include physical, political, economic or cultural characteristics.
- ✓ Geographers categorize regions into three:
  - ☝ **Formal (Uniform) Regions:** characterized by a common human property. E.g. presence of people who share a language, religion, nationality, and political identity; and common physical property such as climate, landform, vegetation. They are based on measurable data.
  - ☝ **Functional (Nodal) regions**: are regions that is made up of different places that are linked and function as a unit. Usually a functional region is characterized by a hub or central place, and defined by the linkages binding particular phenomena. E.g. Addis Ababa is the center of Ethiopia linked with other regions.

Cont'd . . .

- **Perceptual Regions**

✓ Is a region in which people perceive, or see the characteristics of a region in the same way. These regions are based on human feelings and attitudes. E.g. "Piassa" is the middle of Addis Ababa.

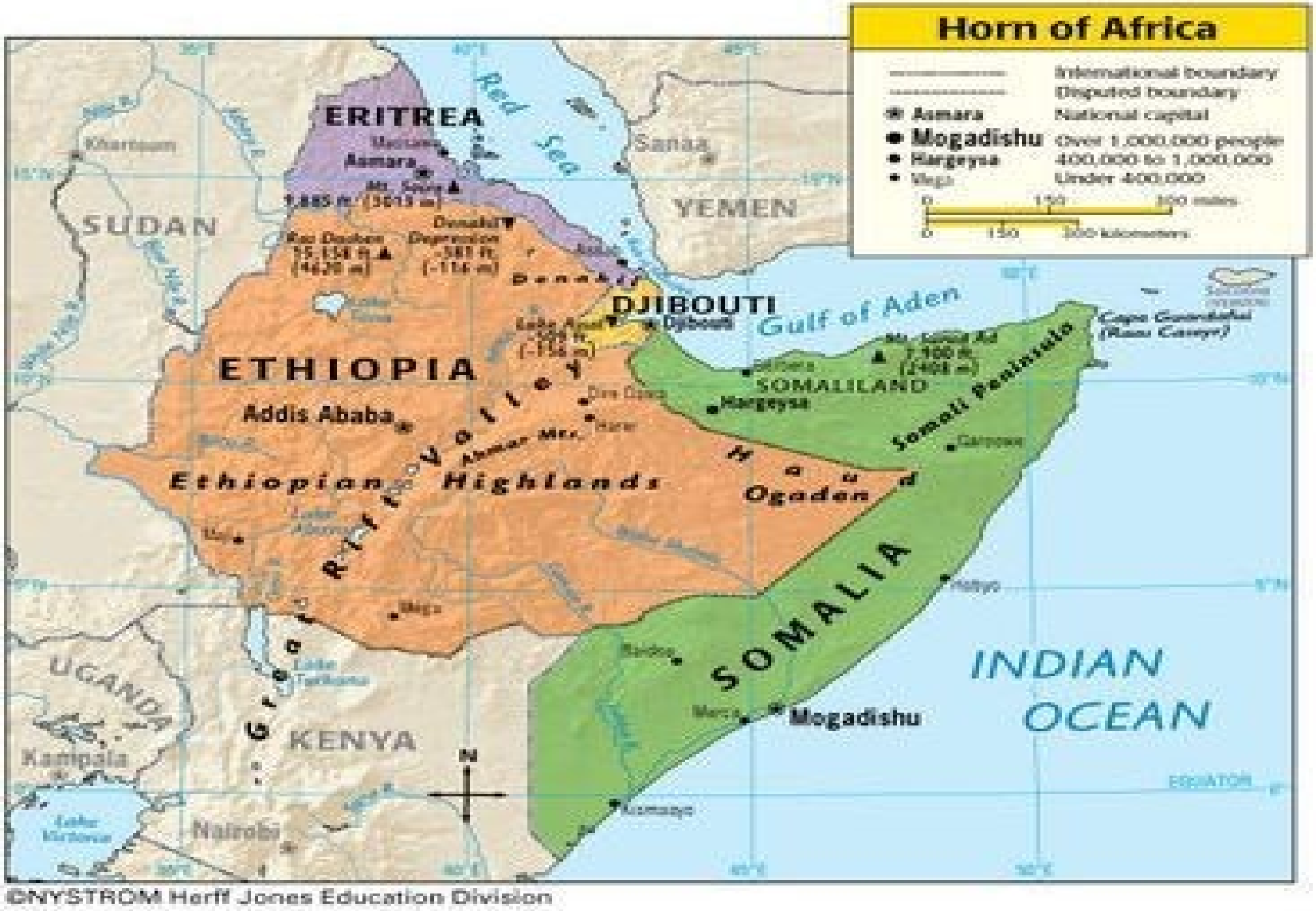
Location, Shape and Size of Ethiopia and the Horn

✓ The Horn of Africa, a region of eastern Africa, is a narrow tip that protrudes into the northern Indian Ocean, separating it from the Gulf of Aden.

✓ It is the easternmost extension of African

✓ home to the countries of Djibouti, Eritrea, Ethiopia, and Somalia,

Cont'd . . .


Horn of Africa
International boundary
Disputed boundary
Asmara
National capital
Mogadishu
Over 1,000,000 people
Hargeysa
400,000 to 1,000,000
Under 400,000
ERITREA
Asmara
Red Sea
Sanaa
YEMEN
SUDAN
Khartoum
DJIBOUTI
Djibouti
Gulf of Aden
Cape Guardafui (Raas Caseyr)
ETHIOPIA
Addis Ababa
SOMALILAND
Hargeysa
Somali Peninsula
Ethiopian Highlands
Ogaden
SOMALIA
Mogadishu
INDIAN OCEAN
UGANDA
Kampala
KENYA
Nairobi
Lake Victoria
Great Rift Valley
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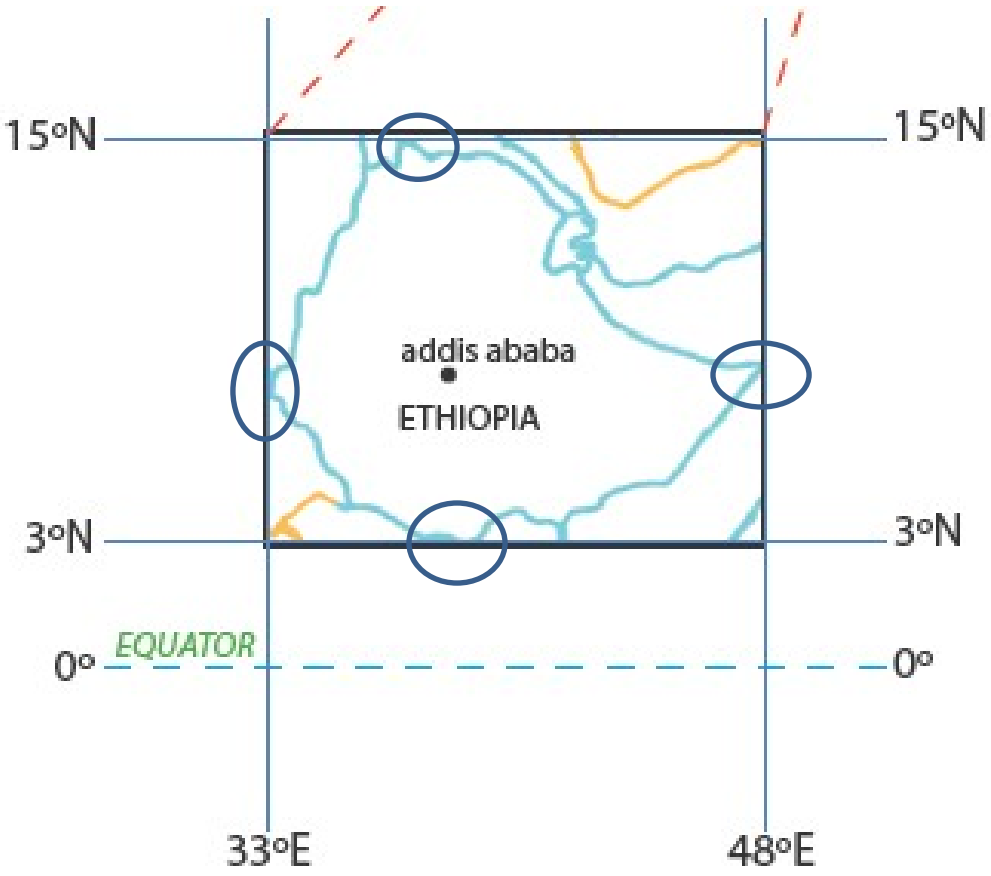
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- ✓ whose cultures have been linked throughout their long history.
- ✓ Although the countries of the region share many common features, there is also great diversity among them, rendering each country unique in many respects.

Location of Ethiopia

- ✓ **Astronomical location /**mathematical location/,
- – Ethiopia located: 3^0N (Moyale) – 15^0N(Badme) **Latitude**

  33^0E(Akobo) to 48^0E (the tip of Ogaden) **Longitudes**


15°N
15°N
addis ababa
ETHIOPIA
3°N
3°N
0°
EQUATOR
0°
33°E
48°E

Cont'd . . .

- ✓ East - West distance (15^0) is longer than the North - South distance (12^0).

Vicinal location	In relation to water bodies & land masses
✓Sudan to the west and northwest	✓Southwest of the Arabian Peninsula
✓South Sudan to southwest	✓Northwest of the Indian Ocean
✓Djibouti to the east	✓In the Nile Basin
✓Somalia to the east and southeast	
✓Eritrea to the north and northeast	
✓Kenya to the south	

Cont'd . . .

- ✓ The implications of the location of Ethiopia are described as follows:
- ☝ **Climate:**
- ✓ 3^0N and 15^0N (between the Equator and Tropic of Cancer) implies that the country has a **tropical climate**, though modified by its **altitude**.
- ✓ The location of Ethiopia relative to the Indian Ocean, the Atlantic Ocean and the African and Asian landmass has also various bearings on the climate of Ethiopia.
- ☝ **Socio-cultural:**
- ✓ Ethiopia is one of the earliest recipients of the major world religions namely
  - ✓ Christianity,
  - ✓ Islam and
  - ✓ Judaism due to its proximity to the Middle East
- ✓ The linguistic and other cultural relationships, which Ethiopia shares with its neighbors, reflect the influence of location.

Cont'd . . .

- **Political:**

✓ The political history of Ethiopia has been considerably influenced by:

- Geopolitical considerations of superpowers.
- Adjacency to the Red Sea (a major global trade route).
- The Middle East geopolitical paradigms.

✓ As a result, Ethiopia has been exposed for external invasions in a number of times; though the country resisted foreign intervention and remains free of external domination.

Size of Ethiopia

✓ Ethiopia with a total area of approximately **1,106,000** square kilometers is the 8th largest country in Africa and 25th in the World.

Cont'd . . .

- ✓ It extends about 1,639 kilometers East-West, and 1,577 kilometers North-South.
- ✓ It contains about 0.7 percent of the world's land area and about 3.6 percent of Africa's land mass.

Table: Advantages and disadvantages of

Advantages	Disadvantages
Possess diverse agro ecological zones	Demands greater capital to construct infrastructural facilities
Variety of natural resources	Requires large army to protect its territory
Own extensive arable land	Difficult for effective administration
Have larger population size	Difficult for socio-economic integration
Home for diverse cultures	
Greater depth in defense external invasion	

Cont'd . . .

The shape of Ethiopia and its Implication

- Countries of the World have different kinds of shape that can be divided into five main categories:
  - Compact,
  - Fragmented,
  - Elongated,
  - perforated, and
  - protruded.
- These shapes have implications on defense, administration and economic integration within a country.

Cont'd . . .

Compact shape countries: The distance from the geographic centre of the state to any of the borders does not vary greatly. It is , socioeconomic and cultural integr



Fragmented shape countries: *They are divided from their other parts by other countries. E.g. Philippines*



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Elongated shape countries: They are geographically long and relatively narrow like Chile.



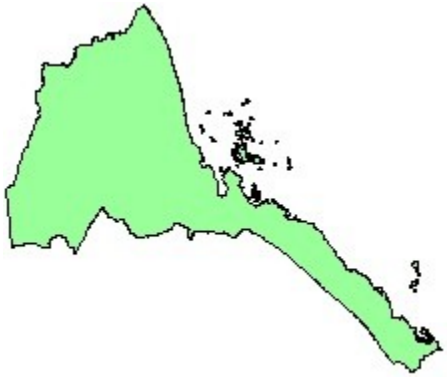
Perforated shape countries: A country that com surrounds another country like the Republic of **S**



In the Midd

*country called **Lesotho.***

Protrude shape countries: *Countries that have portion that is much more elongated than the rest of the country like Myanmar and Eritrea.*



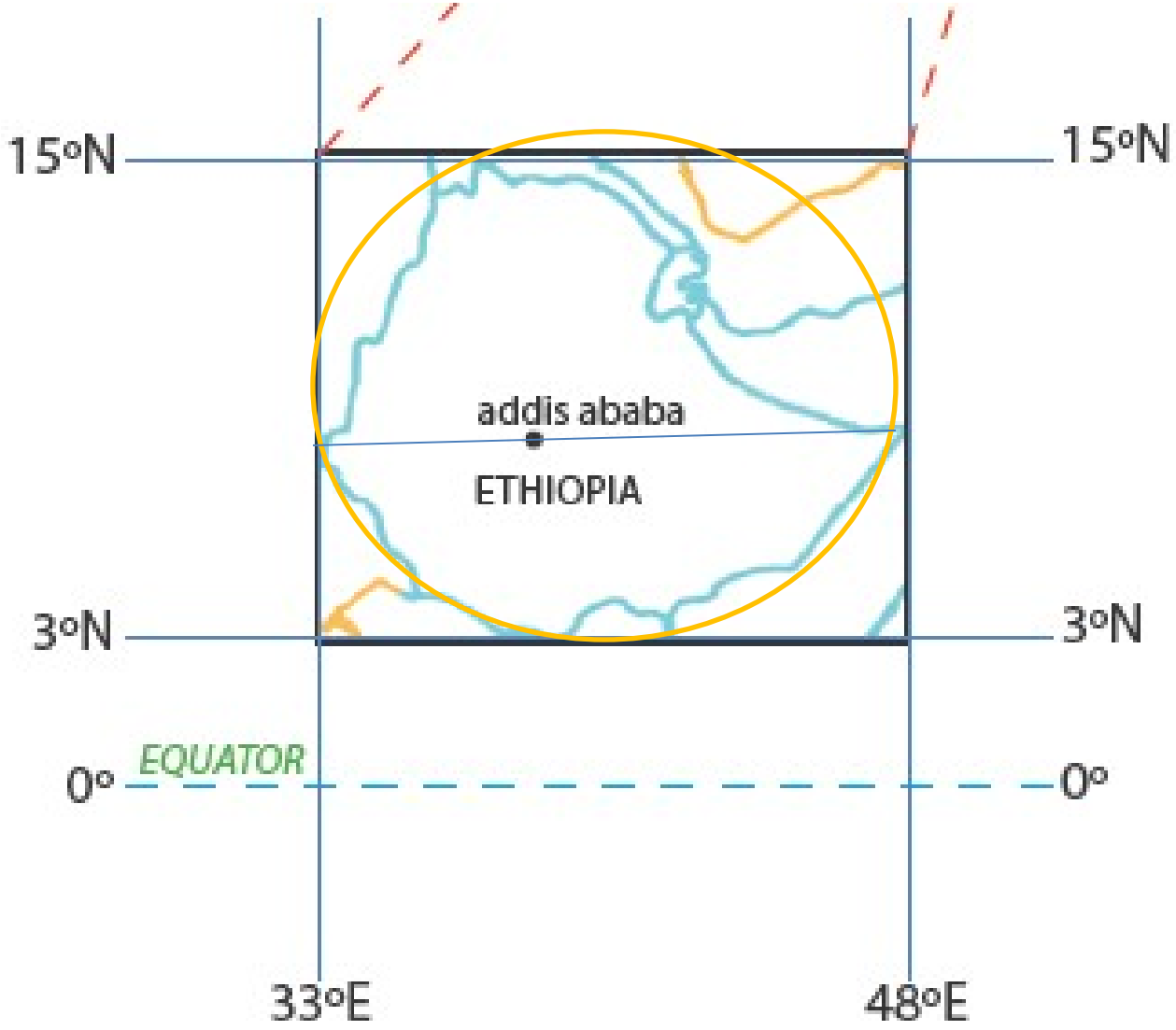
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- ✓ There are various ways of measuring shape of countries, known as the ***indices of compactness***.
- ✓ It measure the deviation of the shape of a country from a circular shape.
- ✓ There are four most commonly used measures of compactness. These are:

1. ***The ratio of area of country to its boundary length***: Area-Boundary ratio. The higher the A/B ratio, the greater the degree of compactness i.e., the country or territory has a long border compared to its surface **area**.
2. ***Boundary-Circumference ratio***. It measures how far the boundary of a country approximates the circumference of a circle of its own size.

Cont'd . . .

3. ***Area-Circumference ratio***. It compares the *area of the country with the circumference of a circle that passes touching the extreme points* on the boundary of the country. The higher the A/C ratio, the greater the degree of compactness.
4. ***Area-Area (A/A") ratio***. The area of the inscribing circle is the area of the smallest possible circle whose circumference passes through the extreme points on the boundary. The nearer the ratio to 1, the more compact the country is.



Circumference= Diameter*3.14

1^0 = 110.5 km

Cont'd . . .

Table: Ethiopia's shape compared to its neighbors in the Horn

Country	Area(km^2)	Boundary (km)	A/B ratio	B/C ratio	A/C ratio
Ethiopia	1,106,000	5,260	210.27	1.41	296.61
Djibouti	22,000	820	26.83	1.56	41.83
Eritrea	117,400	2,420	48.51	1.99	96.83
Kenya	582,644	3,600	161.85	1.33	215.28
Somalia	637,657	5,100	125.03	1.80	225.22

Basic Skills of Map Reading

- ✓ A map is a two-dimensional scaled representation of part or whole of the Earth surface on a flat body such as piece of paper, black board, wood or cloth.
- ✓ Map reading encompasses a systematic identification of natural features and manmade features.

Cont'd . . .

- ✓ Although many disciplines use maps, they have a special significance for Geographers as primary tools for displaying and analyzing spatial distributions, patterns and relations.

Importance of maps

- ✓ Provide the basis for making geographical details of regions represented i.e. the geographical facts of an area such as relief, drainage, settlement etc.
- ✓ Maps are powerful tools for making spatial analysis of geographical facts of areas represented.
- ✓ Maps are useful for giving location of geographical features by varied methods of grid reference, place naming etc.

Cont'd . . .

- ✓ Maps are used on various disciplines like land use planning, military science, aviation, tourism, marine science, population studies, epidemiology, geology, economics, history, archaeology, agriculture etc.
- ✓ Map makes storage of the geographical data of areas represented.
- ✓ Maps are potentially used to asses‟ reliable measurements of the geographical features. The measurements can be of area size, distance etc.

Types of Map

- ✓ There are many types of maps according to their purpose and functions. For now, only topographical and statistical maps are considered .

Cont'd . . .

A. ***Topographical maps***: Topographic maps depict one or more natural and cultural features of an area.

- ✓ portray different features at the same time.
- ✓ They could be small, medium or large scale depending on the size of the area represented.
- ✓ Contents of topographical maps depend on purpose of a map, scale of a map, date of compilation, and nature of the land represented.

B. ***Special purpose/statistical maps****: These are maps, which show distribution of different aspects such as temperature, rainfall, settlement, vegetation etc.*

- ✓ *distribution maps that emphasize the distribution of a single geographical element or character.*

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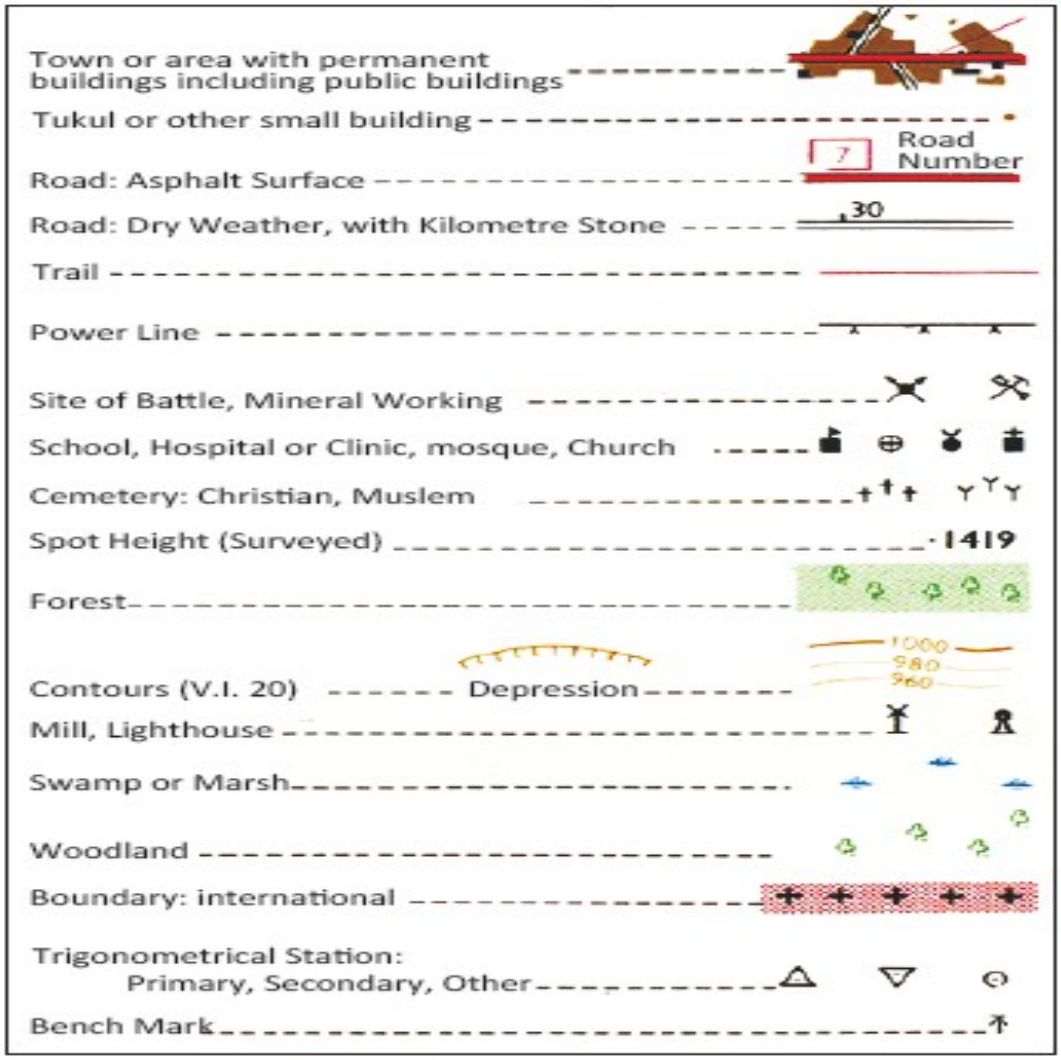
Marginal Information on Maps (Elements of Maps)

- ✓ **Title:** It is the heading of the given map which tells what the map is all about.
- ✓ **Key (legend):** It is the list of all convectional symbols and signs shown on the map with their interpretation.
- ✓ **Scale:** It is the ratio between the distance on the map and the actual ground distance.
- ✓ **North arrow:** It is indicated with the north direction on a map
- ✓ **Margin:** Is the frame of the map. It is important for showing the end of the mapped area.
- ✓ **Date of compilation:** It is a date of map publication.

Cont'd . . .

Basic Principles of Map Reading

- In developing map reading abilities and skills, certain basic principles must be applied by the map-reader
- Map Readers must have ideas about the symbol and also the real World (landscapes).
- Knowledge of directions is an important principle in reading maps. One of the basic functions of maps is to help us to orient ourselves and to locate places on the earth
- Knowledge of locating places on a map by using grid system


Town or area with permanent buildings including public buildings
Tukul or other small building
7
Road Number
Road: Asphalt Surface
30
Road: Dry Weather, with Kilometre Stone
Trail
Power Line
Site of Battle, Mineral Working
School, Hospital or Clinic, mosque, Church
Cemetery: Christian, Muslem
Spot Height (Surveyed)
1419
Forest
1000
980
960
Contours (V.I. 20)
Depression
Mill, Lighthouse
Swamp or Marsh
Woodland
Boundary: international
Trigonometrical Station:
Primary, Secondary, Other
Bench Mark