



STANDARD EIGHT

**TERM - I
VOLUME - 3**

SOCIAL SCIENCE



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STANDARD EIGHT

HISTORY GEOGRAPHY



Unit - 1

Advent of The Europeans



Learning Objectives

- ▶ To know about the kinds of sources of modern India
- ▶ To understand the Portuguese trade interests in India
- ▶ To understand the impact of Portuguese and Dutch presence in India
- ▶ To know the colonial settlements of Denmark
- ▶ To know the arrival and settlement of English and French East India Companies



Introduction

Many of the foreign travelers, traders, missionaries and civil servants who came to India in the 18th and 19th centuries have left accounts of their experiences and their impressions of various parts of the country. To know the events of modern period, we have abundant sources at the international, national, and regional level.

Sources of Modern India

The sources for the history of modern India help us to know the political, socio-economic and cultural developments in the country. From the very beginning, the Portuguese, the Dutch, the French, the Danes, and the English recorded their official transactions in India on state papers. Well preserved records are very valuable to know about their relations in India. The archives at Lisbon, Goa, Pondicherry and Madras were literally store



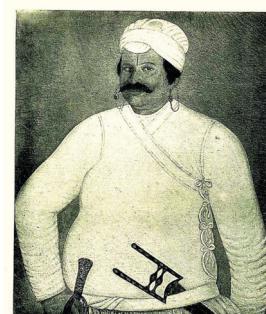
houses of precious historical informations. All these sources must, however, be critically evaluated before they are used for historical writing.

Kinds of Sources

We can write history with the help of sources like written sources and material sources.

Written Sources

After the advent of the printing press, numerous books were published in different languages. Hence, people began to acquire knowledge easily in the fields like art, literature, history and science. The Europeans came to know about the immense Wealth of India from the accounts of Marco Polo and similar sources. The wealth of India attracted Europeans to this country. Ananda



Ananda Rangam



Rangam is a name to conjure with in the annals of Tamil history. He was a Dubash (Translator) in Pondicherry to assist French trade in India. He recorded the events that took place in French India. His diaries contain the daily events from 1736 to 1760, which are the only written secular record available during that period. His diaries reveal his profound capacity for political judgment, and is a most valuable source of history. Written sources include Literatures, Travel Accounts, Diaries, Auto Biographies, Pamphlets, Government Documents and Manuscripts.

Archives

This is the place where historical documents are preserved. The National Archives of India (NAI) is located in New Delhi. It is the chief storehouse of the records of the government of India. It has main source of information for understanding past administrative machinery as well as a guide to the present and future generations related to all matters. It contains authentic evidence for knowing the political, social, economic, cultural and scientific life and activities of the people of India. It is one of the largest Archives in Asia.

DO YOU KNOW?

George William Forrest can rightly be called as the Father of National Archives of India.

Tamil Nadu Archives

The Madras Record Office, presently known as Tamil Nadu Archives (TNA) is located in Chennai. It is one of the oldest and largest document repositories in Southern India. The most of the records in the Tamil Nadu archives are in English. The collections include series of administrative records in Dutch, Danish, Persian and Marathi. Few documents are in French, Portuguese, Tamil and Urdu.



Tamil Nadu Archives

Tamil Nadu Archives has 1642 volumes of Dutch records which relate to Cochin and Coromandal coast. These records cover the period from 1657 – 1845. The Danian records cover the period from 1777 – 1845. Dodwell prepared with great effort and the first issue of the calendar of Madras records was published in 1917. He was highly interested in encouraging historical researches. He opened a new chapter in the History of Tamil Nadu Archives.

Material Sources



St. David Fort (Cuddalore)

Many paintings and statues are the main sources of modern Indian history. They give us a lot of information and the achievement of national leaders and historical personalities. Historical buildings like St. Francis Church at Cochin, St. Louis Fort at Pondicherry, St. George Fort in Madras, St. David fort in Cuddalore, India Gate, Parliament House, President House in New Delhi, etc are different styles and techniques of Indian architecture. Other objects and materials of religious, cultural and historical value are collected and preserved in Museums. These museums help



to preserve and promote our cultural heritage. The national museum in Delhi is the largest museum in India which was established in 1949.

Coins are a good source to know about administrative history. The first coinage in modern India under the crown was issued in 1862. Edward VII ascended after Queen Victoria and the coins issued by him bore his model. The Reserve Bank of India was formally set up in 1935 and was empowered to issue Government of India notes. The first paper currency issued by RBI in January 1938 was 5 rupee notes bearing the portrait of King George VI.



In 1690, Fort St. David's was built by the British in Cuddalore.

Advent of the Europeans

After the capture of Constantinople by the Turks in A.D (CE) 1453, the land route between India and Europe was closed.

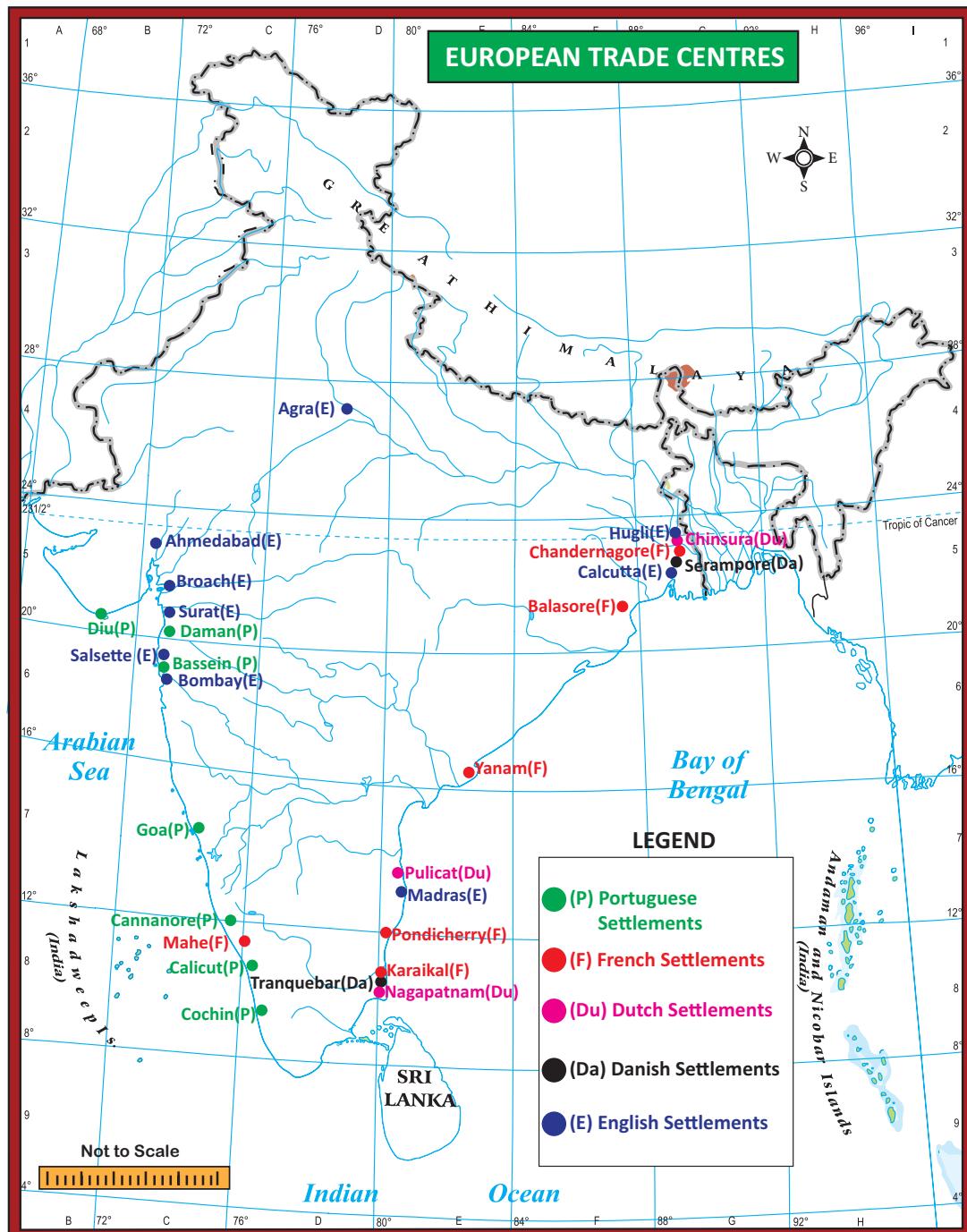
The Turks penetrated into North Africa and the Balkan Peninsula. It became imperative on the part of the European nations to discover new sea routes to the East.

Audio-visual means possessing both a sound and a visual component, such as slide-tape presentations. Audio-visual service providers frequently offer web streaming, video conferencing and live broadcast services. Television, films, internet are called 'Audio-visual media'.

Portugal

Amongst the entire European nations Portugal was the foremost to make a dynamic attempt to discover a sea route to India. Prince Henry of Portugal, who is commonly known as the "Navigator", encouraged his countrymen to take up the adventurous life of exploring the unknown regions of the world. Bartholomew Diaz, a Portuguese sailor reached the southern-most point of Africa in 1487. He was patronized by the King John II.





Vasco da Gama

Vasco da Gama, another Portuguese sailor reached the southern-most point of Africa and he continued his journey to Mozambique from where he sailed to India with the help of an Indian pilot. In A.D



Vasco da Gama

(CE) 1498, he reached Calicut, where he was cordially received by King Zamorin, the ruler of Calicut. A second Portuguese navigator, Pedro Alvares Cabral, sailed towards India, following the route discovered by Vasco da Gama with 13 ships and a few hundred soldiers in 1500. On his arrival at Calicut, there arose conflicts between the Portuguese and king Zamorin.

Vasco da Gama came to India for the second time in 1501 with 20 ships and



founded a trading centre at Cannanore. One after another, they established factories at Calicut and Cochin. King Zamorin attacked the Portuguese in Cochin, but was defeated. Cochin was the first capital of the Portuguese East India Company. The third voyage of Vasco da Gama was in 1524. He soon fell ill, and in December 1524 he died in Cochin.

Francisco de Almeida (1505-1509)

In 1505, Francisco de Almeida was sent as the first Governor for the Portuguese possessions in India. Almeida had the aim of developing the naval power of the Portuguese in India. His policy was known as the “Blue Water Policy”.

As Portuguese tried to break the Arab's monopoly on Indian Ocean trade, it negatively impacted on the trade interests of Egypt and Turkey. Sultans of Bijapur and Gujarat were also apprehensive of the expansion of Portuguese control of ports which led to an alliance between Egypt, Turkey and Gujarat against Portuguese invaders. In a naval battle fought near Chaul, the combined Muslim fleet won a victory over the Portuguese fleet under Almeida's son who was killed in the battle. Almeida defeated the combined Muslim fleet in a naval battle near Diu, and by the year 1509, Portuguese claimed the naval supremacy in Asia.

Alfonso de Albuquerque (1509-1515)

The real founder of the Portuguese power in India was Alfonso de Albuquerque. He captured Goa from the Sultan of Bijapur in November 1510. In 1515, he established the Portuguese authority over Ormuz in Persian Gulf. He encouraged the marriages of the Portuguese with Indian women. He maintained friendly relations with Vijayanagar Empire.

Nino de Cunha (1529-1538)

Governor Nino de Cunha moved capital from Cochin to Goa in 1530. In 1534, he acquired Bassein from Bahadur Shah of

Gujarat. In 1537, the Portuguese occupied Diu. Later, they wrested Daman from the local chiefs of Gujarat. In 1548, they occupied Salsette.

Thus during the 16th century, Portuguese succeeded in capturing Goa, Daman, Diu, Salsette, Bassein, Chaul and Bombay on the western coast, Hooghly on the Bengal coast and San Thome on the Madras coast and enjoyed good trade benefits. The Portuguese brought the cultivation of tobacco to India. Due to the influence of Portuguese Catholic religion spread in certain regions on India's western and eastern coasts. The printing press was set up by the Portuguese at Goa in 1556. A scientific work on the Indian medicinal plants by a European writer was printed at Goa in 1563. In 17th century, the Portuguese power began to decline to the Dutch and by 1739 the Portuguese pockets became confined to Goa, Diu and Daman.

The Dutch

The Dutch followed the Portuguese into India. In 1602, the United East India company of Netherlands was formed and it received the sanction of their government to trade in East India. After their arrival in India, the Dutch founded their first factory in Masulipatnam, (Andhra Pradesh) in 1605. This company captured Amboyna from the Portuguese in 1605 and established its supremacy in the Spice Islands. They captured Nagapatnam near Madras from the Portuguese and made this place as their strong hold in South India. At first, Pulicat was their headquarters. Later, they shifted it to Nagapatnam in 1690.

The most important Indian commodities traded by the Dutch were silk, cotton, indigo, rice and opium. They monopolized the trade in black pepper and other spices. The important factories in India were Pulicat, Surat, Chinsura, Kasim bazaar, Patna, Nagapatnam, Balasore and Cochin.

The English East India Company remained engaged in rivalry with the



Portuguese and the Dutch throughout the 17th century. In 1623, the Dutch cruelly killed ten English traders and nine Javanese in Amboyna. This incident accelerated the rivalry between the two Europeans companies. Their final collapse came with their defeat by the English in the Battle of Bedera in 1759. The Dutch lost their settlements one by one to the English and was completely wiped out by the year 1795.

Dutch in Tamil Nadu

The Portuguese who established a control over Pulicat since 1502 were overthrown by the Dutch. In Pulicat, the Dutch built the fort Geldria in 1613. This fort was once the seat of Dutch power.



Geldria Fort (Pulicat)

The Dutch established their settlement at Pulicat in 1610. Diamonds were exported from Pulicat to the western countries. The other Dutch colonial forts and possessions were Nagapattinam, Punnakayal, Porto Novo, Cuddalore and Devanampatinam;

The British

On 31st December 1600, Elizabeth, the Queen of England granted a charter to the governor and company of Merchants of London to trade with East Indies. The Company was headed by a Governor and a court of 24 directors. Captain Hawkins visited Jahangir's court in 1608 to get certain concessions for the company. He secured permission to raise

a settlement at Surat. However, the Emperor cancelled the permission under pressure from the Portuguese.

In 1612, the English Captain Thomas Best, inflicted a severe defeat over the Portuguese in a naval battle near Surat. The Mughal Emperor Jahangir permitted the English to establish their factory in 1613 at Surat, which initially became the headquarters of the English in western India. Captain Nicholas Downton won another decisive victory over the Portuguese in 1614. These events enhanced the British prestige at the Mughal court. In 1615, Sir Thomas Roe was sent to Jahangir's court by King James I of England. He remained at Agra for three years and succeeded in concluding a commercial treaty with the emperor. Before the departure of Sir Thomas Roe, the English had established their trading centres at Surat, Agra, Ahmadabad and Broach.

On the coastline of the Bay of Bengal, the English established their first factory in 1611 at Masulipatam, an important port in the territory of the kingdom of Golconda. In 1639, the English merchant, Francis Day, obtained Madras as a lease from Chennappa Nayaka, the ruler of Chandragiri. The East India Company built its famous factory known as Fort St. George in Madras, which became their headquarters for the whole of the eastern belt and first fort built by British.

King Charles II of England received the island of Bombay as a part of his dowry from the Portuguese King, on the occasion of his marriage with Catherine. In 1668, the East India Company acquired the island at an annual rent of £ (pounds) 10 from Charles II.

In 1690 a factory was established at Sutanuti by Job Charnock. The Zamindari of the three villages of Sutanuti, Kalikata and Govindpur was acquired by the British in 1698. These villages later grew into the city of Calcutta. The factory at Sutanuti was fortified in 1696 and this new fortified settlement was named as 'Fort William' in 1700.



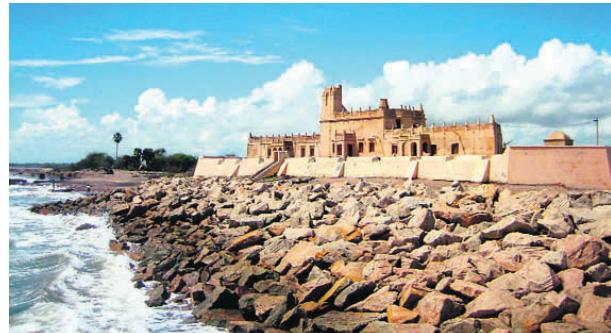
After the Battle of Plassey in 1757 and the Battle of Buxar in 1764, the Company became a political power. India was under the East India Company's rule till 1858 after it came under the direct administration of the British Crown.

Danish

On March 17, 1616 the King of Denmark, Christian IV, issued a charter and created a Danish East India company. They established settlement at Tranqueber (Tamilnadu) in 1620 and Serampore (Bengal) in 1676. Serampore was their headquarters in India. They failed to strengthen themselves in India and they sold all their settlement in India to the British in 1845.

DO YOU KNOW?

- Danish called Tranqueber as Danesborg. The king of Denmark sent Ziegenbalg to India. Ziegenbalg set up a printing press at Tranqueber (Tarangambadi).



Tranquebar Danish Fort

The French

The French East India Company was formed in 1664 by Colbert, a Minister of King Louis XIV. In 1667, a French expedition came to India under Francois Caron. France was the last European country to come India as traders. Caron founded the first French factory in India at Surat. In 1669, Marcara founded second French factory at Masulipatam by securing a patent from the Sultan of Golkonda.

In 1673, the settlement of Pondicherry was founded by Martin under a grant from Sher Khan Lodi, the ruler of Bijapur. Pondicherry became the most important and prosperous French settlement in India. A fort known as St. Louis was built by Francois Martin in Pondicherry. In 1673, the French obtained permission from Shaista Khan, the Mughal Subedar (governor) of Bengal to establish a township at Chandranagore, near Calcutta.



Colbert

The French East India Company established factories in different parts of India, particularly in the coastal regions such Mahe, Karaikal, Balasore and Qasim Bazar. These were a few important trading Centers of the French East India Company.

The vision of the French power in India was further reinforced by the appointment of Joseph Francois Dupleix as the Governor of the French East India Company in 1742. He succeeded Dumas as the French governor of Pondicherry.

DO YOU KNOW?

- The Swedish East India Company was founded in Gothenburg, Sweden, in 1731 for the purpose of conducting trade with the Far East. The venture was inspired by the success of the Dutch East India Company and the British East India Company.

Conclusion

Since the Portuguese were eliminated by the Dutch and later extinguished by the English, the French were left to face the English for control over trade and territory. The French neglected trade and entangled themselves in wars with Indian and other European powers. The three "Carnatic



wars” ruined the French and rejuvenated the English to embark on a systematic territorial expansion. The comparative success of the British over the Portuguese, the Dutch, the Danish, and the French was largely due to their commercial competitiveness, spirit of supreme sacrifice, government support, naval superiority, national character and their ascendancy in Europe.

Recap

- Ananda Rangam is a name to conjure with in the annals of Tamil history.
- The Madras Record Office, known as Tamil Nadu Archives (TNA) is

located in Chennai.

- Prince Henry of Portugal, is commonly known as the “Navigator”.
- The “Blue Water Policy” was followed by Almeida.
- The Mughal Emperor Jahangir permitted the English East India Company to establish their factory in 1613 at Surat.
- French East India Company was formed in 1664 by Colbert.
- Pondicherry became the most important and prosperous French settlement in India.

GLOSSARY

Missionaries	religious missions	சமயப்பரப்பு குழுவினர்
Pamphlets	a small booklet	பிரசுரங்கள்
Archives	the place where historical documents and records are kept	ஆவணக்காப்பகம்
Manuscripts	handwritten books or documents	ஈடையமூத்து பிரதிகள்
Repository	a person or thing regarded as a store of information	களஞ்சியம்
Voyage	a long journey especially by ship	கடற்பயணம்
Monopoly	exclusive control or possession of something	முற்றுரிமை
Navigator	in earlier times, a person who explored by ship	கடல்வழி வல்லுநர்/மாலுமி



Evaluation

I. Choose the correct answer.

1. Who laid the foundation of Portuguese power in India?
- a) Vasco da Gama
 - b) Bartholomew Diaz
 - c) Alfonso de Albuquerque
 - d) Almeida



2. Which of the following European Nation was the foremost attempt to discover a sea route to India?
- a) Dutch
 - b) Portugal
 - c) France
 - d) Britain
3. In 1453 Constantinople was captured by _____.
- a) The French
 - b) The Turks
 - c) The Dutch
 - d) The British
4. Sir William Hawkins belonged to _____.
- a) Portugal
 - b) Spain
 - c) England
 - d) France



5. The first fort constructed by the British in India was _____.
a) Fort St. William b) Fort St. George
c) Agra fort d) Fort St. David
6. Who among the following Europeans were the last to come India as traders?
a) The British b) The French
c) The Danish d) The Portuguese
7. Tranquebar on the Tamilnadu coast was a trade centre of the _____.
a) The Portuguese b) The British
c) The French d) The Danish

II. Fill in the blanks.

1. National Archives of India (NAI) is located in _____.
2. Bartholomew Diaz, a Portuguese sailor was patronized by _____.
3. The printing press in India was set up by _____ at Goa in 1556.
4. The Mughal Emperor _____ permitted the English to trade in India.
5. The French East India Company was formed by _____.
6. _____ the King of Denmark issued a charter to create Danish East India company.

III. Match the following.

1.	The Dutch	1664
2.	The British	1602
3.	The Danish	1600
4.	The French	1616

IV. State true or false.

1. Auto biography is one of the written sources.
2. Coins are one of the material sources.
3. Ananda Rangam was a translator served under British.
4. The place where historical documents are preserved is called archives.

V. Consider the following statements and tick (✓) the appropriate answer.

- i) Governor Nino de Cunha moved Portuguese capital from Cochin to Goa.
- ii) Portuguese were the last to leave from India.
- iii) The Dutch founded their first factory at Surat.
- iv) Sir Thomas Roe was sent to Jahangir's court by King James I of England.
- a) i & ii are Correct.
b) ii & iv are Correct.
c) iii is correct.
d) i, ii & iv are correct.

Find out the wrong pair

- | | | |
|--------------------|---|----------|
| 1. Francis Day | - | Denmark |
| 2. Pedro Cabral | - | Portugal |
| 3. Captain Hawkins | - | Britain |
| 4. Colbert | - | France |

VI. Answer the following in one or two sentences.

- Give a short note on Archives?
- Write about the importance of Coins?
- Why Prince Henry is called 'Henry the Navigator'?
- Name the important factories established by the Dutch in India.
- Mention the trading centers of the English in India.

VII Answer the following.

- Give an account of the sources of Modern India.
- How did the Portuguese establish their trading centres in India?
- How did the British establish their trading centres in India?



VIII Map skill

1. On the river map of India, mark the following trading centres of the Europeans.

- | | |
|------------|----------------|
| 1) Calicut | 2) Cochin |
| 3) Madras | 4) Pondicherry |
| 5) Surat | 6) Chinsura |
| 7) Pulicat | 8) Calcutta |

IX HOTS

1. How did the fall of Constantinople affect the European nations?

X Student Activity

Prepare a chart on the kinds of sources of Modern India.



REFERENCE BOOKS

- Bipan Chandra - *History of Modern India*, Orient Blackswan Private Limited 2018
- Sumit Sarkar, *Modern India 1885-1947*, Laxmi Publications; Reprint edition (2008)
- Ishita Banerjee-Dube - *A History of Modern India*, Cambridge University Press 2014



INTERNET RESOURCES

- www.india.gov.in
- www.historynet.com
- www.ducksters.com



ICT CORNER

SOURCES OF MODERN INDIA

Through this activity you will visualize the Sources of Indian History



Oil Painting On Wood, Portrait Of Dom Vasco Da Gama
16th Century AD 1524

Steps

- Open the Browser and type the URL given below (or) Scan the QR Code.
- Click on Timeline, go to left side menu and Select any one (Ex. Paintings)
- Drag the Time line bar to appropriate period (Ex.1500-1600 A.D)

Website URL:

<http://museumsofindia.gov.in/repository/home>



B360_8_SOCIAL_EM



Unit - 2

From Trade to Territory



Learning Objectives

- ▶ To know the rise of the Political Power of English East India Company
- ▶ To know the events and impact of Battle of Plassey and Buxar
- ▶ To know the Carnatic wars and Mysore wars
- ▶ To understand the growth of colonial army and civilian administration
- ▶ To understand the principles of Subsidiary Alliance and Doctrine of Lapse



Introduction

In the 15th Century, Europe witnessed an era of geographical discoveries through land and sea routes. In 1498, Vasco Da Gama of Portugal discovered a new sea route from Europe to India. The main motive behind those discoveries was to maximize profit through trade and to establish political supremacy. The rule of East India Company in India became effective after the conquest of Bengal. The main interest of the company in India was territorial and commercial expansions.

Establishment of Political Power by the English East India Company

Battle of Plassey (1757)

Alivardi Khan, the Nawab of Bengal died in 1756 and his grandson Siraj-ud-daula ascended the throne of Bengal. The British taking advantage of the New Nawab's weakness and unpopularity seized

The Black Hole tragedy (1756)

There was a small dungeon room in the Fort William in Calcutta, where troops of the Nawab of Bengal Siraj-ud-daula, held 146 British Prisoners of war for one night. Next day morning, when the door was opened 123 of the prisoners found dead because of suffocation.

power. So, Siraj-ud-daulah decided to teach them (British) a lesson by attacking over their political settlement of Calcutta. The Nawab captured their factory at Kasimbazar. On 20th June 1756, Fort William surrendered but Robert Clive recovered Calcutta.

On 9th February 1757, Treaty of Alinagar was signed, whereby Siraj-ud-daulah conceded



Battle of Plassey (1757)



practically all his claims. British then captured Chandranagore, the French settlement, on March 1757. The battle of Plassey took place between the British East India Company and the Nawab of Bengal and his French allies. It

was fought on 23 June 1757. The English East India Company's forces under Robert Clive defeated the forces of Siraj-ud-daulah. After the collapse of Bengal, the company gained a huge amount of wealth from the treasury of



Bengal and used it to strengthen its military force. The beginning of the British political sway over India may be traced from the Battle of Plassey. It was the most decisive battle that marked the initiation of British rule in India for the next two centuries.

Battle of Buxar (1764)

After the Battle of Plassey in 1757, the company was granted undisputed right to have free trade in Bengal, Bihar and Orissa. It received the place of 24 parganas in Bengal. Mir Jafar (1757 to 1760) the Nawab of Bengal however fell into arrears and was forced to abdicate in favor of his son in law, Mir Qasim.

Mir Qasim ceded Burdwan, Midnapore and Chittagong. He shifted his capital to from Mursidabad to Monghur. Mir Qasim soon revolted as he was angry with the British for misusing the destakes (free duty passes). However, having been defeated by the British, he fled to Awadh, where he formed a confederacy with Shuja-ud-daulah and Shah Alam.



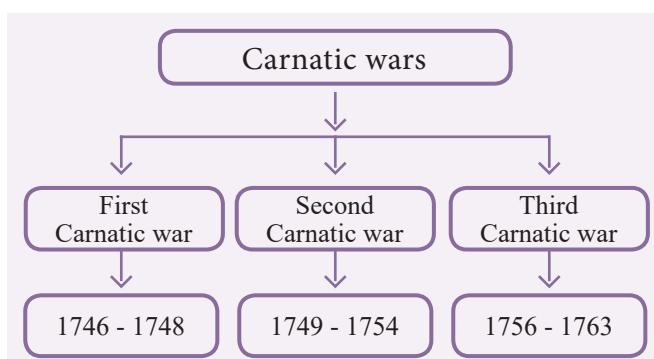
Battle of Buxar (1764)

The Battle was fought on October 22, 1764 at Buxar, a “small fortified town” within the territory of Bihar, located on the banks of the Ganges river about 130 kilometers west of Patna. It was a decisive victory for the British East India Company. Shuja-ud-daulah, Shah Alam and Mir Qasim were defeated by General Hector Munro. Mir Jafar was again placed on the throne. On Mir Jafar’s death, his son Nizam-ud-daulah was placed on the throne and signed Allahabad Treaty on 20th February 1765 by which the Nawab had to disband

most of his army and to administer Bengal through a Deputy Subahdar nominated by the company. Robert Clive concluded two separate treaties with Shuja-ud-daulah and Shah Alam II. Dual System of government started in Bengal.

Carnatic wars

In the 18th century, three Carnatic wars were fought between various Indian rulers, British and French East Indian Company on either side. Traditionally, Britain and France were rival countries in Europe. Their rivalry continued in India over trade and territories. It resulted in a series of military conflicts in the south known as the Carnatic wars which spanned from 1746 to 1763. These wars resulted in establishment of political supremacy of British East Indian Company.



First Carnatic war

On the outbreak of the Austrian war of succession in Europe the English and the French were on opposite camps increased the hostility between these two forces. The echo of this war was felt in India.

Battle of Adayar (1746)

The First Carnatic War is remembered for the battle of San. Thome (Madras) fought between the French forces and the forces of Anwar-ud-din, the Nawab of Carnatic, who appealed the British for help. A small French army under Captain Paradise defeated the strong Indian army under Mahfuz Khan



at San. Thome on the banks of the River Adayar. This was the first occasion when the superiority of the well-trained and well-equipped European army over the Indian army was proved beyond doubt.

Treaty of Aix-la-Chapelle (1748)

The war was ended by the treaty of Aix-la-Chapelle which brought the Austrian War of Succession to an end. Under the terms of this treaty, Madras was returned back to the English, and the French, in turn, got their territories in North America.

Second Carnatic War

The main cause of this war was the issue of succession in Carnatic and Hyderabad. Anwaruddin Khan and Chanda Sahib were the two claimants to the throne of Carnatic, whereas Nasir Jang and Muzaffar Jang were claimants to the throne of Hyderabad. The French supported Chanda sahib and Muzaffar Jang, while the British supported the other claimants with the objective of keeping their interest and influence in the entire Deccan region.

Battle of Ambur (1749)

Finally Dupleix, Chanda Sahib and Muzaffar Jang formed a grand alliance and defeated and killed Anwar-ud-din Khan, the Nawab of Carnatic, on 3 August 1749 in the Battle of Ambur. Muhammad Ali, the son of Anwar-ud-din, fled to Trichinopoly. Chanda Sahib became the Nawab of Carnatic and rewarded the French with the grant of 80 villages around Pondicherry.

In the Deccan, too, the French defeated and killed Nasir Jang and made Muzaffar Jang as the Nizam. The new Nizam gave ample rewards to the French. He appointed Dupleix as the governor of all the territories in south of the river Krishna. Muzaffar Jang was assassinated by his own people in 1751. Salabat Jang, brother of Nasir Jang was raised to the throne by Bussy. Salabat Jang granted

the Northern Circars excluding the Guntur District to the French. Dupleix's power was at its zenith by that time.

Battle of Arcot (1751)

In the meantime, Dupleix sent forces to besiege the fort of Trichy where Muhammad Ali had taken shelter. Chanda Sahib also joined with the French in their efforts to besiege Trichy. Robert Clive's proposal was accepted by the British governor, Saunders, and with only 200 English and 300 Indian soldiers, Clive was entrusted the task of capturing Arcot. His attack proved successful.

Robert Clive defeated the French at Arni and Kaveripak. With the assistance of Lawrence, Chanda Sahib was killed in Trichy. Muhammad Ali was made the Nawab of Arcot under British protection.

The French Government recalled Dupleix to Paris.



Robert Clive

Treaty of Pondicherry (1755)

Dupleix was succeeded by Godeheu who agreed the treaty of Pondicherry. According to it, both the powers agreed not to interfere in the internal affairs of the native states. They were to retain their old positions. New forts should not be built by either power. The treaty made the British stronger.

The second Carnatic war also proved inconclusive. The English proved their superiority on land by appointing Mohammad Ali as the Nawab of Carnatic. The French were still very powerful in Hyderabad. However, the predominant position of the French in the Deccan peninsula was definitely undermined in this war.

Third Carnatic War

The outbreak of the Seven Years' War in Europe led to the third Carnatic war in



India. By this time, Robert Clive established the British power in Bengal by the Battle of Plassey which provided them with the necessary finance for the third Carnatic war.

Count de Lally was deputed from France to conduct the war from the French side. He easily captured Fort St. David. He ordered Bussy to come down to the Carnatic with his army, to make a united effort to push the British out of the Carnatic. Taking advantage of Bussy's departure, Robert Clive sent Colonel Forde from Bengal to occupy the Northern Circars (parts of Andhra Pradesh and Odisha).

Battle of Wandiwash (1760)

The decisive battle of the third Carnatic war was fought on January 22, 1760. The English army under General Eyre Coote totally routed the French army under Lally. Within a year the French had lost all their possessions in India. Lally returned to France where he was imprisoned and executed.

Treaty of Paris (1763)

The Seven Years' War was concluded by the treaty of Paris. The French settlements including Pondicherry were given back to the French. But they were forbidden from fortifying those places. They were not allowed to gather armies. The French dominance in India practically came to an end.

Mysore and its Resistance to British Expansion

The state of Mysore rose to prominence in the politics of South India under the leadership of Haider Ali (1760-82). He and his son Tipu Sultan (1782-99) played a prominent role against the expansion of British Empire in India. Both of them faced the English with undoubted courage. In 1761, he became the de facto ruler of Mysore. He also proved to be the most formidable enemy of the English in India.

The First Anglo-Mysore War

Causes

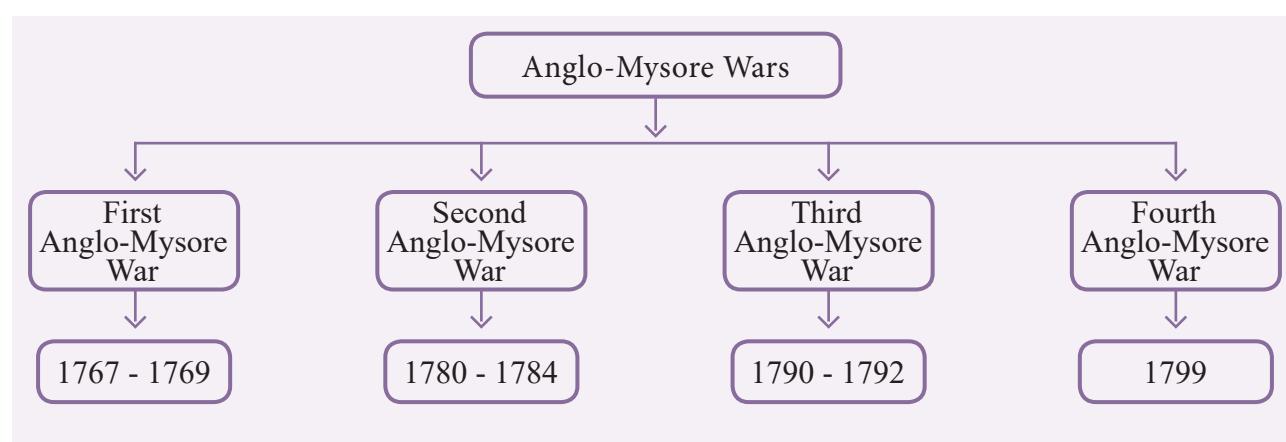
- Haider Ali's growing power and his friendly relations with the French became a matter of concern for the English East India Company.
- The Marathas, the Nizam and the English entered into a triple alliance against Haider Ali.

Course

The Nizam, with the help of British troops under General Joseph Smith, invaded Mysore in 1767. Haider Ali defeated English and captured Mangalore. In March 1769, he attacked Madras and forced the English to sign a treaty on 4 April 1769.

Treaty of Madras (1769)

At the end of the war, the Treaty of Madras was signed between Haider Ali and





British East India Company. Both the parties returned the conquered territories and promised to help each other in case of any foreign attack on them.

The Second Anglo-Mysore War

Causes

- The English did not fulfill the terms of the treaty of 1769, when Haider's territories were attacked in 1771 by Marathas, Haider did not get help from the British.
- British captured Mahe, a French settlement within Haider's Jurisdiction. It led to the formation of an alliance by Haider with the Nizam and Marathas against the English in 1779.

Course

In 1781, the British General Sir Eyre Coote defeated Haider Ali at Porto Novo. The Mysore forces suffered another defeat at Solinger. Haider Ali died of cancer during the course of the war. After the death of Haider Ali in 1782, his son Tipu Sultan, continued the war against the English.

Tipu captured Brigadier Mathews, the supreme commander of the British forces along with his soldiers in 1783. It was a serious loss to Tipu.

Treaty of Mangalore (1784)

On 7th March 1784 the treaty of Mangalore was signed between the two parties. Both agreed to return the conquered territories and also the prisoners of war.

Thus, Warren Hastings saved the newly-established British dominion from the wrath of powerful enemies like Marathas and Haider Ali. When the British lost their colonies in America and elsewhere, Warren Hastings lost nothing in India. Instead, he consolidated the British power in India.

The Third Anglo-Mysore War

Causes

- Tipu was trying to seek alliance of foreign

powers against the English and for that purpose he had sent his ambassadors to France and Turkey.

- Tipu attacked on Travancore in 1789 whose ruler was an ally of the British.
- The English, the Nizam and the Marathas entered into a "Triple Alliance" against Mysore.

Course

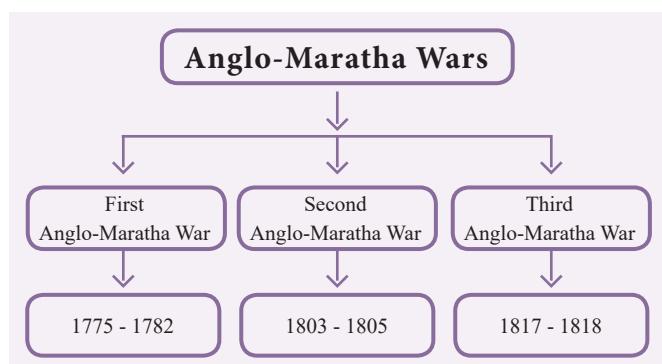
Tipu fought alone which continued for two years. It was fought in three phases. The attack of the English under General Medows failed. Therefore, in December 1790, Cornwallis himself took the command of the army. Cornwallis captured all the hill-forts which obstructed his advance towards Srirangapatnam and reached near its outer wall. Tipu felt desperate and opened negotiations with the English. Cornwallis agreed and the treaty of Srirangapatnam was concluded in 1792.

Treaty of Srirangapatnam (1792)

- Tipu surrendered half of his kingdom to the allies.
- Tipu agreed to pay 3.6 crore of rupees to the English as war indemnity and surrendered two of his sons as hostages to the English.
- The English acquired Malabar, Coorg, Dindigul and Baramahal(Coimbatore and Salem).

The Fourth Anglo-Mysore War

Tipu Sultan did not forget the humiliating treaty of Srirangapatnam imposed upon him by Cornwallis in 1790.





Causes

- Tipu sought alliance with foreign powers against the English and sent ambassadors to Arabia, Turkey, Afghanistan and the French.
- Tipu was in correspondence with Napoleon who invaded Egypt at that time.
- The French officers came to Srirangapatnam where they founded a Jacobin Club and planted the Tree of Liberty.

Course

Wellesley declared war against Tipu in 1799. The war was short and decisive. As planned, the Bombay army under General Stuart invaded Mysore from the west. The Madras army, which was led by the Governor-General's brother, Arthur Wellesley, forced Tipu to retreat to his capital Srirangapatnam. On 4th May 1799 Srirangapatnam was captured. Tipu fought bravely and was killed finally. Thus ended the fourth Mysore War and the whole of Mysore lay prostrate before the British.

Mysore after the War

- The English occupied Kanara, Wynad, Coimbatore, Darapuram and Srirangapattinam.
- Krishna Raja Odayar of the former Hindu royal family was brought to the throne.
- Tipu's family was sent to the fort of Vellore.

Anglo-Maratha Wars

The Marathas managed to overcome the crisis caused by their defeat at Panipat and after a decade recovered their control over Delhi. However the old Maratha Confederacy controlled by the Peshwa had given way to five virtually independent states. Peshwa at Pune, Gaikwads at Baroda, Bhonsle at Nagpur, Holkars at Indore, and Scindias at Gwalior. The Peshwa's government was weakened by internal rivalries, and the other four leaders were often hostile to one another. Despite this, the Marathas were still a formidable power. The internal conflict among the

Marathas was best utilized by the British in their expansionist policy.

First Anglo-Maratha War

In the case of the Marathas, the first British intervention was at the time of dispute over succession to the Peshwaship following the death of Narayan Rao. After the death of Narayan Rao, Raghunath Rao (Raghoba) became the Peshwa, but his authority was challenged by a strong party at Poona under Nana Phadnavis. The party recognised the infant born posthumously to Narayan Rao's wife, Ganga Bai, as the Peshwa and set up a council of regency in his name. Having failed in his bid to capture power, Raghunath Rao approached the British for help. The Treaty of Surat between the English and Raghunath Rao was concluded in 1775. However, the majority of the Supreme British Council in Calcutta was opposed to the Surat treaty, although Warren Hastings himself had no objection to ratifying the treaty. The council sent Colonel Upton to Poona to negotiate a peace with the Poona regency. Accordingly, Upton concluded the Treaty of Purandhar in 1776. The treaty, however, did not take effect due to opposition from the English government in Bombay.

In 1781, Warren Hastings dispatched British troops under Captain Popham. He defeated the Maratha chief, Mahadaji Scindia, in a number of small battles and captured Gwalior. Later on 17th May 1782, the Treaty of Salbai was signed between Warren Hastings and Mahadaji Scindia.

Results

- Raghunath Rao was pensioned off and Madhav Rao II was accepted as the Peshwa.
- Salsette was given to the British.
- The Treaty of Salbai established the British influence in Indian politics. It provided the British twenty years of peace with the Marathas.



The internal affairs of the Marathas

The internal affairs of the Marathas deteriorated further after the close of the first Maratha War. Nana Fadnavis grew fond of power, jealous of Mahadaji Scindia and became progressively inclined to seek the support of the English. The young Peshwa, Madhava Rao II, tried to improve the affairs but could not check the rivalry of the Maratha chiefs. Mahadaji Scindia died in 1794 and was succeeded by his grand nephew Daulat Rao Scindia. His death left Nana Fadnavis supreme at Poona and the English to expand their influence in north India. Peshwa Madhav Rao II committed suicide in 1795, and BajiRao II, worthless son of RaghunathRao, became the Peshwa. The death of Nana Phadnavis in 1800 gave the British an added advantage.

Jaswant Rao Holkar and Daulat Rao Scindia were fighting against each other. The Peshwa supported Scindia against Holkar. The Peshwa and the Scindia agreed to help each other. Holkar marched against the Peshwa. The combined forces of Scindia and the Peshwa were utterly defeated in 1802 and captured the city. BajiRao II approached Lord Wellesley, the then Governor-General of India, for help. Lord Wellesley welcomed the Peshwa and made him sign the Treaty of Bassein, in other words, the Treaty of Subsidiary Alliance, accepting the status of a British subsidiary in 1802. As an immediate to the Treaty of Bassein, the British troops marched under the command of Arthur Wellesley towards Poona and restored the Peshwa to his position. The forces of Holkar vanished from the Maratha capital.

The Second Anglo-Maratha War

After accepted the subsidiary alliance by the Peshwa, DaulatRaoScindia and RaghojiBhonsle attempted to save Maratha's independence. But the well prepared and organised army of the English under Arthur Wellesley defeated the combined armies of Scindia and Bhonsle at Assaye and Argaon.

The English forced them to conclude separate subsidiary treaties namely the Treaty of Deogaon and the Treaty of Surji-Arjungaon respectively in 1803. But, YashwantRaoHolkar (also called as JaswantRaoHolkar) was yet undefeated. He had not participated in the war so far. Holkar plundered the territory of Jaipur and, in 1804, the English declared war against him. YashwantRaoHolkar made an attempt to form a coalition of Indian rulers to fight against the British. But his attempt proved unsuccessful. The Marathas were defeated, reduced to British vassalage and isolated from one another.

Results

- The Maratha power was gradually weakened.
- The English East India Company started becoming the paramount power in India.

The Third Anglo-Maratha War

The Third Anglo-Maratha War was the final and decisive conflict between the British East India Company and the Maratha Empire in India. It began with an invasion of the Maratha territory by British East India Company troops. The troops were led by the Governor General Hastings and he was supported by a force under General Thomas Hislop. The Peshwa BajiRao II's forces, followed by those of Mudhoji II Bhonsle of Nagpur and Malharrao Holkar III of Indore, rose against the British. Daulatrao Scindia of Gwalior remained neutral. The Peshwa was defeated in the battles of Khadki and Koregaon and several minor battles were fought by the Peshwa's forces to prevent his capture. Bhonsle was defeated in the battle of Sitabaldi and Holkar in the battle of Mahidpur.

Results

- The Maratha confederacy was dissolved and Peshwaship was abolished.
- Most of the territory of Peshwa BajiRao II was annexed and became part of the Bombay Presidency.



- The defeat of the Bhonsle and Holkar also resulted in the acquisition of the Maratha kingdoms of Nagpur and Indore by the British.
- The BajiRao II, the last Peshwa of Maratha was given an annual pension of 8 lakh rupees.

The British Administrative Organisation in India

The British Indian administration was run by four principal institutions - Civil Services, Army, Police and Judiciary.

Civil Services

The term 'civil service' was used for the first time by the East India Company to distinguish its civilian employees from their military counterparts. Translating law into action and collecting revenue were the main jobs of the civil service. The civil service was initially commercial in nature but later it was transformed into a public service. In the beginning, the appointment to these services was the sole prerogative of the Court of Directors of the Company. But the nominated civil servants indulged in corruption, bribery and illegal private trade. So, Cornwallis who came to India as Governor-General in 1786, enforced the rules against private trade. He also raised the salary of the Company's servants who became the highest paid civil servants in the world.

Lord Wellesley, who came to India as Governor-General in 1798, introduced the idea of suitable training for the civil servants in India. In 1800, he established the College in Fort William at Calcutta to provide training in literature, science and languages. However, the directors of the Company disapproved of his action and replaced it by their own East India College, established at Haileybury in England in 1806.

The idea of competition for recruitment was introduced first by the Charter Act, 1833.

But the system of competition was these not nominated by the Court of Directors were not eligible to write the competitive examination. Hence, the system was called as nomination-cum-competition system. The system of recruitment on the basis of open competitive examination was introduced in 1853. This system was confirmed by the Government of India Act of 1858. The maximum age for competitors was fixed at 23. Subsequently, East India College at Haileybury was abolished in 1858, and recruitment to civil services became the responsibility of the civil service commission. By the Regulation of 1860 the maximum age was lowered to 22, in 1866 to 21 and in 1876 to 19.

The Indian Civil Service Act of 1861 passed by the British Parliament exclusively reserved certain categories of high executive and judicial posts for the covenanted civil service which was later designated as the Indian Civil Service. Due to the lowering of age limit and holding of examination in London it could be possible only for a very few wealthy Indians to appear at the I.C.S. examination. In 1869, three Indians - Surendra Nath Banerje, Ramesh Chandra Dutt and Bihari Lal Gupta became successful in the I.C.S. examination.



Satyendranath Tagore, the elder brother of poet Rabindranath Tagore, was the first Indian to pass the I.C.S. Examination in 1863.

Later on, the Indians demanded to increase the age limit and to establish centre for examination in India instead of England. In 1892, the minimum age limit for appearing for the Civil Service Examination was raised to 21 and the maximum to 23. In 1912, a Royal Commission on Public Service was appointed. Chaired by Lord Islington, this commission had two Indian members - G.K. Gokhale and Sir Abdur Rahim - besides four Englishmen. The Commission published



its report in 1917. Islington commission's recommendations partly fulfilled the demand for the Indianisation of Civil Service.

In 1918, Montague and Lord Chelmsford recommended that 33% Indian should be recruited in Indian Civil Services and gradually the number should be increased. In 1923, a Royal Commission on Public Services was appointed with Lord Lee of Fareham as chairman. This commission recommended that recruitment to all-Indian services like the Indian Civil Service, the Indian Police Service and the Indian Forest Service should be made and controlled by the Secretary of State for India. The Lee Commission recommended the immediate establishment of a Public Service Commission.

The Act of 1935 also made provisions for the establishment of a Federal Public Service Commission at the Centre and the Provincial Public Service Commissions in the various provinces. Provision was also made for a Joint Public Service Commission in two or more Provinces. Although, the main aim of this measure was to serve the British interests, it became the base of the civil service system in independent India.

Army

The army was the second important pillar of the British administration in India. The East India Company started recruiting its own army, which came to be known as the sepoy (from sipahi or soldier) army. That sepoy army was trained and disciplined according to European military standards and was commanded by European officers in the battlefield. During the early stage of British rule, three separate armies had been organised in three Presidencies of Bengal, Bombay and Madras. Army had a great contribution in the establishment and expansion of British rule in India. Indian soldiers were given less salaries and allowances than English



soldiers. In 1857, the Indians constituted about 86 percent of the total strength of the Company's army. However, the officers of the army were exclusively British. For example, in 1856, only three Indians in the army received a salary of 300 rupees per month. The highest rank an Indian could ever reach was that of a subehdar.

Strength of British Army

- Plassey war (1757): 1950 European infantry, 100 European artillery, 50 English sailors, and 2,100 Indian sepoys, an English army of 6000 troops was maintained in Bengal.
- In 1857, the strength of the army in India was 3,11,400 of whom 2,65,900 were Indians. Its officers were British.

After the revolt of 1857, the important changes were made in the Indian army services in 1858. They increased British troops and reduced Indian troops. Also, only English were appointed in artillery.

Police

When the East India Company took over the diwani in 1765, the Mughal police system was under the control of faujdars, who were in charge of their 'sarkars' or rural districts. The kotwals were in charge of towns, while the village watchmen were paid and controlled by the Zamindars.

The police system was created by Lord Cornwallis. He relieved the Zamindars from police functions and established a regular police force in 1791. Cornwallis established a system of circles or 'thanas' each headed by a 'daroga'. The authority of the daroga extended to village watchmen who performed the police duties in the villages. The hereditary village police became 'chowkidars'. In the big cities, the old office of kotwal was, however, continued, and a daroga was appointed to each of the wards of a city. The daroga system was extended to Madras in 1802.



Before the post of district superintendent of police was created, all the thanas were under the general supervision of the district judge. In 1808, a Superintendent of Police was appointed for each division. Later, the district collector was entrusted with the task of controlling the police force in the districts. The main task of the police was to handle crime and to prevent conspiracy against the British rule.

Judicial system

In 1772, the Dual Government was abolished and the Company took over the direct responsibility for the collection of revenue as well as the administration of justice. Consequently a Diwani Adalat and Faujdari Adalat were established. By the Regulating Act of 1773, a Supreme Court was set up in Calcutta. This court consisted of a chief justice and three puisne judges who were appointed by the Crown. This court decided civil, criminal, ecclesiastical and admiralty cases. On the model of the Supreme Court of Calcutta, a Supreme Court was established in Madras in 1801 and in Bombay in 1823. In 1832, William Bentinck started jury system in Bengal. A Indian Law Commission was established to compile the laws. A rule of law was established for the whole empire. According to the Indian High Courts Act, 1861, three High Courts were set up in Calcutta, Bombay and Madras in place of the old Supreme Courts.

Do YOU KNOW?

Sir Elija Impey was the first Chief Justice of the Supreme Court at Fort William in Bengal. Sir Thiruvarur Muthusamy Iyyar was the first Indian Chief Justice of the Madras High Court.

The Subsidiary Alliance

Lord Wellesley introduced the system of Subsidiary Alliance to bring the princely states

under the control of the British. It was the most effective instrument for the expansion of the British territory and political influence in India. The princely state was called 'the protected state' and the British came to be referred as 'the paramount power'. It was the duty of the British to safeguard the state from external aggression and to help its ruler in maintaining internal peace.

Main Features of Subsidiary Alliance

- An Indian ruler entering into this alliance with the British had to dissolve his own armed forces and accept British Forces.
- A British Resident would stay in his capital.
- Towards the maintenance charges of the army, he should make annual payments or cede some territory permanently to the Company.
- All the non-English European officials should be turned out of his state.
- The native ruler should deal with foreign states only through the English Company.
- The British would undertake to defend the state from internal trouble as well as external attack.

Merits for the British

- The British Company maintained a large army at the expense of the Indian rulers.
- All Frenchmen in the service of native rulers were dismissed, and the danger of French revival was completely eliminated.
- The British Company began to control the foreign policy of the Princely States.
- Wellesley's diplomacy made the British the paramount power in India. He transformed the British Empire in India into the British empire of India.

Defects of the Princely states

The Subsidiary Alliances made the Indian rulers weak, oppressive and irresponsible.



Protected by British arms, they neglected their duty towards their subjects and even exploited them.

The first Indian state to accept the Subsidiary Alliance was Hyderabad (1798). It was followed by Tanjore (1799), Auadh (1801), Peshwa (1802), Bhonsle (1803), Gwalior (1804), Indore (1817), Jaipur, Udaipur and Jodhpur (1818).

Doctrine of Lapse

Lord Dalhousie was one of the chief architects of the British Empire in India. He was an imperialist. He adopted a new policy known as Doctrine of Lapse to extend British Empire. He made use of this precedent and declared in 1848 that if the native rulers adopted children without the prior permission of the Company, only the personal properties of the rulers would go to the adopted sons and the kingdoms would go to the British paramount power. This principle was called the Doctrine of Lapse. It was bitterly opposed by the Indians and it was one of the root causes for the great revolt of 1857.

By applying the Doctrine of Lapse policy, Dalhousie annexed Satara in 1848, Jaipur and Sambalpur in 1849, Baghat in 1850, Udaipur in 1852, Jhansi in 1853 and Nagpur in 1854.

Factors for the success of the British

- greater naval power.
- development of textile.
- scientific division of labour.
- economic prosperity and skilful diplomacy of the British.

- feelings of insecurity among the Indian merchants.
- the inequality and ignorance of the Indian kings.

Conclusion

The Battle of Plassey was the foundation of British dominion in India. The company's administration was not for the interests of people. It was imperialistic, expansionist and exploitative. It brought more Indian territories under British domain through subsidiary Alliance and Doctrine of Lapse. This policy led to a South Indian rebellion (1800-01), Vellore Rebellion (1806) and the Great Rebellion (1857).

Recap

- Siraj-ud-daula ascended the throne of Bengal.
- On 9th February 1757, Treaty of Alinagar was signed.
- The Carnatic wars which spanned from 1746 to 1763.
- Tipu agreed to pay 3.6 crore of rupees to the English as war indemnity.
- Wellesley declared war against Tipu in 1799.
- Cornwallis established a system of circles or 'thanas' each was headed by a 'daroga'.
- Sir Elijah Impey was the first Chief Justice of the Supreme Court at Fort William in Bengal.
- Lord Wellesley introduced the system of Subsidiary Alliance to bring the princely states under the control of the British.
- Lord Dalhousie was one of the chief architects of the British Empire in India.



GLOSSARY

Confederacy	a league or alliance	கூட்டமைப்பு
Ecclesiastical	relating to the Christian Church or its clergy	திருச்சபை தொடர்பான
Entrust	assign the responsibility	ஒப்படைப்பு
Hostility	opposition	எதிர்ப்பு
Negotiation	discussion aimed at reaching an agreement	பேச்சுவார்த்தை
Paramount	supreme	தலையாய்
Predominant	the most powerful	மிகுந்த வலிமை



I. Choose the correct answer.

1. The ruler of Bengal in 1757 was _____.
a. Shuja-ud-daulah
b. Siraj – ud – daulah
c. Mir kasim
d. Tippu Sultan
2. The Battle of Plassey was fought in _____.
a. 1757 b. 1764 c. 1765 d. 1775
3. Which among the following treaty was signed after Battle of Buxar?
a. Treaty of Allahabad
b. Treaty of Carnatic
c. Treaty of Alinagar
d. Treaty of Paris
4. The Treaty of Pondicherry brought the _____ Carnatic war to an end .
a. First b. Second
c. Third d. None
5. When did Hyder Ali crown on the throne of Mysore?
a. 1756 b. 1761 c. 1763 d. 1764



6. Treaty of Mangalore was signed between _____.

- a. The French and Tippu Sultan
- b. Hyder Ali and Zamorin of Calicut
- c. The British and Tippu Sultan
- d. Tippu Sultan and Marathas
7. Who was the British Governor General during Third Anglo-Mysore War?
a. Robert Clive b. Warren Hastings
c. Lord Cornwallis d. Lord Wellesley
8. Who signed the Treaty of Bassein with the British?
a. Bajirao II
b. Daulatrao Scindia
c. Sambhaji Bhonsle
d. Sayyajirao Gaekwad
9. Who was the last Peshwa of Maratha empire?
a. Balaji Vishwanath b. BajiRao II
c. Balaji BajiRao d. BajiRao
10. Who was the first Indian state to join the subsidiary Alliance?
a. Oudh b. Hyderabad
c. Udaipur d. Gwalior



II. Fill in the blanks

1. The Treaty of Alinagar was signed in _____.
2. The commander in Chief of Sirajuddaulah was _____.
3. The main cause for the Second Carnatic war was _____.
4. _____ adopted the policy of Doctrine of Lapse to extend the British Empire in India.
5. Tippu Sultan was finally defeated at the hands of _____.
6. After the death of Tippu Sultan Mysore was handed over to _____.
7. In 1800, _____ established a college at Fort William in Calcutta.

III. Match the following

1.	Treaty of Aix-La-Chapple	First Anglo Mysore War
2.	Treaty of Salbai	First Carnatic War
3.	Treaty of Paris	Third Mysore War
4.	Treaty of Srirangapatnam	First Maratha War
5.	Treaty of Madras	Third Anglo Mysore War

IV. State True or False

1. After the death of Alivardi Khan, Siraj-ud-daulah ascended the throne of Bengal.
2. Hector Munro, led the British forces in the battle of Plassey.
3. The outbreak of the Austrian war of succession in Europe was led to Second Carnatic War in India.
4. Sir Elia Impey was the first Chief Justice of the Supreme Court at Fort William in Bengal.
5. The Police system was created by Lord Cornwallis.

V. Which one of the following is correctly matched?

1. Battle of Adayar – 1748
2. Battle of Ambur – 1754
3. Battle of Wandiwash – 1760
4. Battle of Arcot – 1749

VI. Answer the following in one or two sentences

1. Write a short note on Black Hole Tragedy.
2. What were the benefits derived by the English after the Battle of Plassey?
3. Mention the causes for the Battle of Buxar.
4. What were the causes for the First Mysore War?
5. Bring out the results of the Third Maratha War.
6. Name the states signed into Subsidiary Alliance.

VII. Answer the following in detail.

1. Write an essay on second Carnatic war.
2. Give an account of the Fourth Anglo Mysore war.
3. Describe the policy adopted by Lord Dalhousie to expand the British empire in India.
4. How did Lord Wellesley expand the British power in India?

VIII. HOTs

Explain the causes for the success of the English in India.

IX. Mark the following on the River map of India

1. Plassy 2. Buxar
3. Purandhar 4. Arcot 5. Wandiwash

X. Life skill

Collect pictures, stories, poems and information about Hyder Ali and Tippu Sultan.



XI. Project and Activity

Organize a discussion in your class on the reasons for the defeat of the Indian rulers at the hands of the British.



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INTERNET RESOURCES

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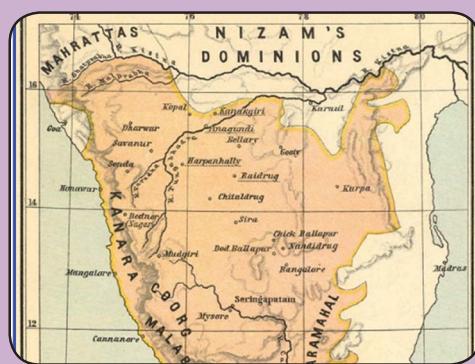
[https://en.wikipedia.org/wiki/Indian_Civil_Service_\(British_India\)](https://en.wikipedia.org/wiki/Indian_Civil_Service_(British_India))



ICT CORNER

FROM TRADE TO TERRITORY / STRUGGLE FOR POWER - RISE OF THE BRITISH

Through this activity you will know about the maps of India (Colonial Period)



Steps

- Open the Browser and type the URL given below (or) Scan the QR Code.
- Scroll down, click any period (ex. COLONIAL MAPS)
- Click the topics one by one and explore the maps (ex. Historical maps, c.1750 to 1800)

Website URL:

<http://ektara.org/magazine/histmaps.html>

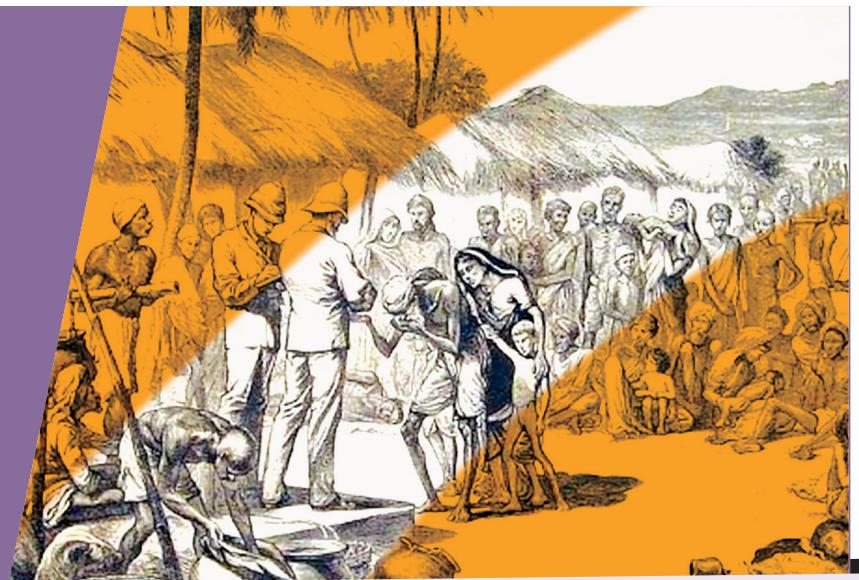


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Unit - 3

Rural Life and Society



Learning Objectives

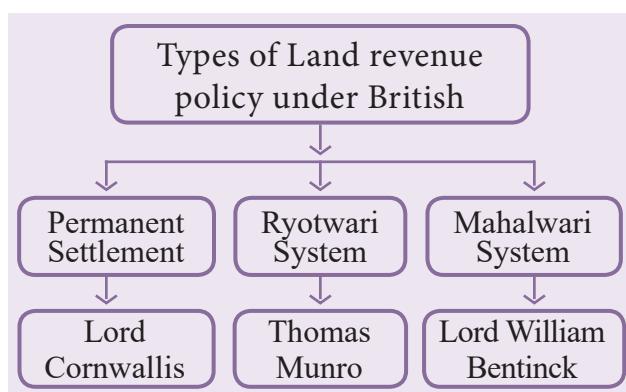
- ▶ To know the land revenue policy under the British Rule
- ▶ To understand the Merits and Demerits of the land revenue policy
- ▶ To know the agrarian crisis and revolts



Introduction

In the pre-colonial period, Indian economy was predominantly an agrarian economy. Agriculture was then the primary occupation of the people and even industries like textiles, sugar, oil, etc. were dependent on it. The British Government in India did not adopt a pro-Indian agriculture and land revenue policy. British Government introduced three major land revenue and tenurial systems in India, namely, the Permanent Settlement, the Mahalwari system and the Ryotwari system. The economic exploitation of the peasants led to the revolt in future.

The Land Revenue Policy under the British



Permanent Settlement

When Robert Clive obtained the Diwani of Bengal, Bihar and Orissa in 1765, there used to be an annual settlement (of land revenue). Warren Hastings changed it from annual to quinquennial (five-yearly) and back to annual again. During the time of Cornwallis, a ten years' (decennial) settlement was introduced in 1793 and it was known Permanent Settlement.

Permanent settlement were made in Bengal, Bihar, Orissa, Varanasi division of U.P., and Northern Karnataka, which roughly covered 19 percent of the total area of British India. It was known by different names like Zamindari, Jagirdari, Malguzari and Biswedari.



Lord Cornwallis

Salient Features of the Permanent Settlement

- The Zamindars were recognised as the owners of land as long as they paid the revenue to the East India Company regularly.
- The Zamindars acted as the agent of the



Government for the collection of revenue from the cultivators.

- The amount of revenue that the Zamindars had to pay to the Company was firmly fixed and would not be raised under any circumstances.
- They gave 10/11 of the revenue collected by them from the cultivator to the Government.
- The Zamindars would grant patta (written agreements) to the ryots. The ryots became tenants since they were considered the tillers of the soil.
- All judicial powers were taken away from the Zamindars.

Merits

- Under this system many of the waste lands and forests became cultivable lands.
- The Zamindars became the owner of the land.
- The Zamindars were made free from the responsibility of providing justice.
- The Zamindars remained faithful to the British Government.
- This system secured a fixed and stable income for the British Government.

Demerits

- The British Government had no direct contact with the cultivators.
- The rights of the cultivators were ignored and they were left at the mercy of the Zamindars.
- The peasants were almost treated as serfs.
- This system was made the Zamindars lethargic and luxurious.
- Many conflicts between the zamindars and the peasants arose in rural Bengal.

Ryotwari system

Ryotwari system was introduced by Thomas Munro and Captain Read in 1820. Major areas of introduction of Ryotwari system included Madras, Bombay, parts of Assam, and Coorg provinces of British India. By Ryotwari system

the rights of ownership was handed over to the peasants. British government collected taxes directly from the peasants. Initially, one-half of the estimated produce was fixed as rent. This assessment was reduced to one-third of the produce by Thomas Munro. The revenue was based on the basis of the soil and the nature of the crop.



Thomas Munro

Rents would be periodically revised, generally after 20 to 30 years. The position of the cultivators became more secure. In this system the settlement was made between the Government and the Ryots. Infact, the Government later claimed that the land revenue was rent and not a tax.

Salient Features of the Ryotwari system

- Revenue settlement was done directly with the ryots.
- Measurement of field and an estimate of produce was calculated.
- Government fixed the demand at 45 to 55 percent of the produce.

Effects of the Ryotwari Settlement

- In most areas the land revenue fixed was excessive; the ryots were hardly left with bare maintenance even in the best of seasons.
- Under this system the government exploited the farmers instead of zamindars.

Mahalwari system

Mahalwari system, a brain child of Holt Mackenzie was modified version of the Zamindari settlement introduced in the Ganga valley, the North-West Province, parts of the Central India and Punjab in 1822. Lord William Bentinck was to



Lord William Bentinck



suggest radical changes in the Mahalwari system by the guidance of Robert Martin Bird in 1833. Assessment of revenue was to be made on the basis of the produce of a Mahal or village. All the proprietors of a Mahal were severally and jointly responsible for the payment of revenue. Initially the state share was fixed two-thirds of the gross produce. Bentinck, therefore, reduced to fifty percent. The village as a whole, through its headman or Lambardar, was required to pay the revenue. This system was first adopted in Agra and Awadh, and later extended to other parts of the United Provinces. The burden of all this heavy taxation finally fell on the cultivators.

Salient Features of the Mahalwari Settlement

- The Lambardar acted as intermediaries between the Government and the villagers.
- It was a village-wise assessment. One person could hold a number of villages.
- The village community was the owner of the village common land.
- The village land belonged to the village community.

Effects of the Mahalwari Settlement

- The Lambardar enjoyed privileges which was misused for their self-interest.
- This system brought no benefit to the cultivators.
- It was a modified version of the Zamindari system and benefited the upper class in villages.

Impact of the British land revenue system on the cultivators

- A common feature of all the settlements was the assessment and the maximize income from land. It resulted in increasing land sales and dispossession.
- The peasants were overburdened with taxation. Due to the tax burden and famines, in general, the people suffered in poverty and burdened with debts. They had to seek the moneylenders who became rich and acquired lands from the peasants.

- The Zamindars, money-lenders and lawyers exploited the poor peasants.
- The stability and continuity of the Indian villages was shaken.
- Cottage industries disappeared on account of the import of British goods and the peasants had nothing to supplement their income.
- The old body of custom was replaced by new apparatus of law, courts, fees, lawyers and formal procedures.
- The British policy proved advantageous only to the government of a privileged section of the society at the cost of the cultivators who were the rightful owners of their lands and claimants of the larger share of the produce.

Peasants Revolts

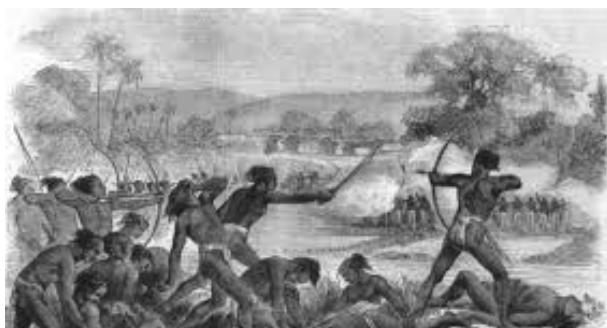
The British rule in India brought about many changes in the agrarian system in the country. The old agrarian system collapsed and under the new system, the ownership of land was conferred on the Zamindars. They tried to extract as much as they could from the cultivators of land. The life of the peasants was extremely miserable. The various peasant movements and uprisings during the 19th and 20th centuries were in the nature of a protest against of the existing conditions under which their exploitation knew no limits.

The Santhal Rebellion (1855-56)

The first revolt which can be regarded as peasants' revolt was the Santhal Rebellion in 1855-56. The land near the hills of Rajmahal in Bihar was cultivated by the Santhals. The landlords and money-lenders from the cities took advantage of their ignorance and began grabbing their lands. This created bitter resentment among them leading to their armed uprising in 1855. Consequently, under the belief of a divine order, around 10,000 Santals gathered under two Santhal brothers, Siddhu and Kanhu, to free their country of the foreign oppressors and set up a government of their own. The rebellion assumed a formidable shape



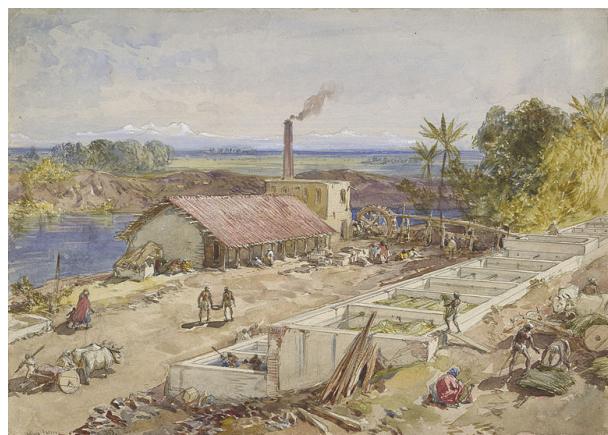
within a month. The houses of the European planters, British officers, railway engineers, zamindars and money-lenders were attacked. The rebellion continued till February 1856, when the rebel leaders were captured and the movement was put down with a heavy hand. The government declared the Parganas inhabited by them as Santhal Parganas so that their lands and identity could be safeguarded from external encroachments.



Santhal Rebellion

Indigo Revolt (1859-60)

The Bengal indigo cultivators strike was the most militant and widespread peasant uprisings. The European indigo planters compelled the tenant farmers to grow indigo at terms highly disadvantageous to the farmers. The tenant farmer was forced to sell it cheap to the planter and accepted advances from the planter that benefitted the latter. There were also cases of kidnapping, looting, flogging and burning. Led by Digambar Biswas and Bishnu Charan Biswas, the ryots of Nadia district gave up indigo cultivation in September 1859. Factories were burnt down and the revolt spread. To take control of the situation, the Government set up an indigo commission in 1860 whose recommendations formed part of the Act VI of 1862. The indigo planters of Bengal, however, moved on to settle in Bihar and Uttar Pradesh. The newspaper, Hindu Patriot brought to light the misery of the cultivators several times. Dinabandhu Mitra wrote a drama, Nil-Darpan, in Bengali with a view to draw the attention of the people and the government towards the misery of the indigo-cultivators.



**Indigo Revolt
Pabna Revolt (1873-76)**

Pabna Peasant Uprising was a resistance movement by the peasants against the oppression of the Zamindars. It originated in the Yusufshahi pargana of Pabna in Bengal. It was led by Keshab Chandra Roy. The zamindars routinely collected money from the peasants by the illegal means of forced levy, abwabs, enhanced rent and so on. Peasants were often evicted from land on the pretext of non-payment of rent.

Large crowds of peasants gathered and marched through villages frightening the zamindars and appealing to other peasants to join with them. Funds were raised from the ryots to meet the costs. The struggle gradually spread throughout Pabna and then to the other districts of East Bengal. Everywhere agrarian leagues were organized. The main form of struggle was that of legal resistance. There was very little violence. It occurred only when the zamindars tried to compel the ryots to submit to their terms by force. There were only a few cases of looting of the houses of the zamindars. A few attacks on police stations took place and the peasants also resisted attempts to execute court decrees. Hardly zamindars or zamindar's agent were killed or seriously injured. In the course of the movement, the ryots developed a strong awareness of the law and their legal rights and the ability to combine and form associations for peaceful agitation.



Deccan Riots (1875)

In 1875, the peasants revolted in the district of Poona, that event has been called the 'Deccan Riots'. The peasants revolted primarily against the oppression of local moneylenders who were grabbing their lands systematically. The uprising started from a village in Poona district when the village people forced out a local moneylender from the village and captured his property. Gradually, the uprising spread over 33 villages and the peasants looted the property of Marwari Sahukars. The uprising turned into violent when the Sahukars took help of the police. It was suppressed only when the army was called to control it. However, it resulted in passing of the Deccan Agriculturists Relief Act' which removed some of the most serious grievances of the peasants.

Punjab Peasant Movement (1890-1900)

The peasants of the Punjab agitated to prevent the rapid alienation of their lands to the urban moneylenders for failure to pay debts. The Government of India did not want any revolt in that province which provided a large number of soldiers to the British army in India. In order to protect the peasants of the Punjab, the Punjab Land Alienation Act was passed in 1900 "as an experimental measure" to be extended to the rest of India if it worked successfully in the Punjab. The Act divided the population of the Punjab into three categories viz., the agricultural classes, the statutory agriculturist class and the rest of the population including the moneylenders. Restrictions were imposed on the sale and mortgage of the land from the first category to the other two categories.



Champaran Satyagraha (1917-18)



Champaran Satyagraha

The European planters of Champaran in Bihar resorted to illegal and inhuman methods of indigo cultivation at a cost which was wholly unjust. Under the Tinkathia system in Champaran, the peasants were bound by law to grow indigo on 3/20 part of their land and send the same to the British planters at prices fixed by them. They were liable to unlawful extortion and oppression by the planters. Mahatma Gandhi took up their cause. The Government appointed an enquiry commission of which Mahatma Gandhi was a member. The grievances of the peasants were enquired and ultimately the Champaran Agrarian Act was passed in May 1918.

Kheda (Kaira) Satyagraha (1918)

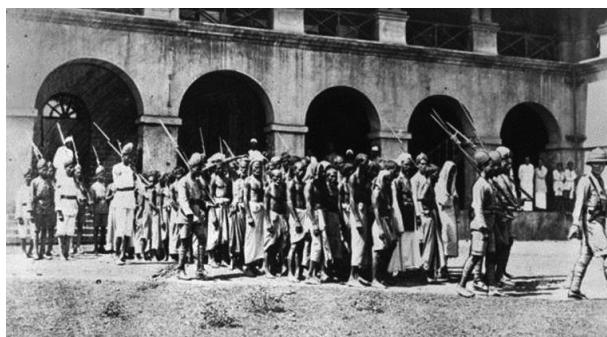
In the Kheda District of Gujarat, due to constant famines, agriculture failed in 1918, but the officers insisted on collection of full land revenue. The local peasants, therefore, started a 'no-tax' movement in Kheda district in 1918. Gandhi accepted the leadership of this movement.

Gandhiji organised the peasants to offer Satyagraha and opposed official insistence on full collection of oppressive land revenue despite the conditions of famine. He inspired the peasants to be fearless and face all consequences. The response to his call was unprecedented and the government had to bow to a settlement with the peasants. Sardar Vallabhbhai Patel emerged as an important leader of the Indian freedom struggle during this period.

Moplah Rebellion (1921)

The Muslim Moplah (or Moplah) peasants of Malabar (Kerala) was suppressed and exploited by the Hindu zamindars (Jenmis) and British government. This was the main cause of this revolt.

The Moplah peasants got momentum from the Malabar District Conference, held in April 1920. This conference supported the tenants' cause, and demanded legislations for regulating landlord-tenant relations. In August 1921, the Moplah tenants rebelled against the oppressive zamindars. In the initial phase of the rebellion, the Moplah peasants attacked the police stations, public offices, communications and houses of oppressive landlords and moneylenders. By December 1921, the government ruthlessly suppressed the Moplah rebellion. According to an official estimate, as a result of government intervention, 2337 Moplah rebels were killed, 1650 wounded and more than 45,000 captured as prisoners.



Moplah prisoners

Bardoli Satyagraha (1929-30)

In 1928, the peasants of Bardoli (Gujarat) started their agitation under the leadership of Sardar Vallabhbhai Patel, in protest against the government's proposal to increase land revenue by 30 percent. The peasants refused to pay tax at the enhanced rate and started no-tax campaign from 12 February 1928. Many women also participated in this campaign.

In 1930, the peasants of Bardoli rose to a man, refused to pay taxes, faced the auction sales and the eventual loss of almost all of their lands but refused to submit to the Government.



However, all their lands were returned to them when the Congress came to power in 1937.



Bardoli Satyagraha

Recap

- The British Government in India did not adopt a pro-Indian agriculture and land revenue policy.
- Lord Cornwallis introduced Permanent Settlement in 1793.

- Ryotwari system was introduced by Thomas Munro and Captain Read in 1820.
- Mahalwari system was a brain child of Holt Mackenzie.
- The land near the hills of Rajmahal in Bihar was cultivated by the Santhals.
- Dinabandhu Mitra wrote a drama, Nil-Darpan, in Bengali.
- In 1875, the peasants revolted in the district of Poona, that event has been called the 'Deccan Riots'.
- The Punjab Land Alienation Act was passed in 1900.
- In August 1921, the Moplah tenants rebelled against the oppressive Zamindars.
- The peasants of Bardoli started their agitation under the leadership of Sardar Vallabhbhai Patel.

GLOSSARY

Apparatus	new system	புதிய அமைப்பு
Claimants	a person making a claim	உரிமை கோருபவர்
Cultivator	a person who cultivates the land	விவசாயி
Encroachment	intrusion on	அத்துமீறல்
Moneylender	a person who lends money to people, at a high rate of interest	கடன் தருபவர்
Predominantly	mainly	முக்கியமாக
Tenants	a person who occupies land rented from a land lord	குத்தகையாளர்/ குடியிருப்பவர்



Evaluation

I. Choose the correct answer

1. Which system was called by different names like Jagirdari, Malguzari and Biswedari etc.?

- a) Mahalwari
- b) Ryotwari



c) Zamindari

d) None of these

2. Under which Governor General did the permanent settlement implemented in Bengal.
- a) Lord Hastings
 - b) Lord Cornwallis
 - c) Lord Wellesley
 - d) Lord Minto



3. What was the Mahal in the Mahalwari system?
a) House b) Town
c) Village d) Palace
4. In which region was the Mahalwari system imposed?
a) Maharashtra b) Madras
c) Bengal d) Punjab
5. Who among the following Governors introduced Mahalwari system?
a) Lord Hastings
b) Lord Cornwallis
c) Lord Wellesley
d) Lord William Bentinck
6. In which region was the Ryotwari system not introduced by the British?
a) Bombay b) Madras
c) Bengal d) None of these
7. The Indigo revolt was led by whom?
a) Mahatma Gandhi
b) Keshab Chandra Roy
c) Digambar Biswas and Bishnu Biswas
d) Sardar Vallabhbhai Patel
8. The Bardoli Satyagraha was led by whom?
a) Sardar Vallabhbhai Patel
b) Mahatma Gandhi
c) Digambar Biswas
d) Keshab Chandra Roy

II Fill in the Blanks

1. _____ is the modified version of the Zamindari system.
2. The Mahalwari system was a Brain child of _____.
3. Indigo Revolt took place in _____.
4. Maplah Rebellion was held in _____.
5. The Champaran Agrarian Act was passed in _____.

III Match the following

1.	Permanent Settlement	Madras
2.	Mahalwari Settlement	Misery of the Indigo cultivators
3.	Ryotwari System	North west province
4.	Nil Darban	Bengal
5.	Santhal Rebellion	First Peasant revolt

IV State true or false

1. Warren Hastings introduced quinquennial land settlement.
2. Ryotwari system was introduced by Thomas Munro.
3. Pabna revolt originated in the Yusufshahi pargana in Gujarat.
4. The Punjab land alienation Act was passed in 1918.

V. Consider the following statement and tick appropriate answer

1. Which of the following statement is not true about Zamindari system?
 - (a) This settlement was introduced in 1793.
 - (b) The Zamindars became the owner of the land.
 - (c) This system secured a fixed and stable income for the cultivators.
 - (d) This practice was applicable to the area of 19% of India.
2. Which of the following statement is correct about Peasants revolt in India?
 - (a) The Santhal rebellion was held in Bengal.
 - (b) Dinabandhu Mitra wrote a drama called Nil Darban.



- (c) The Deccan riots started from a village at Pune in 1873.
- (d) The Moplah peasants rebellion was held in Tamil Nadu.

VI Answer the following in one or two sentences

1. List out any two salient features of the Permanent settlement?
2. What were the salient features of the Ryotwari system?
3. Bring out the effects of the Mahalwari settlement.
4. What was the cause of Indigo Revolt in 1859 – 60?
5. What was the contribution of Mahatma Gandhi on Champaran Satyagraha.
6. Mention the role of Vallabhai Patel in Bardoli Satyagraha.

VII Answer the following in detail.

1. Discuss the merits and demerits of the Permanent settlement.
2. What were the impacts of the British Land Revenue system on the cultivators?
3. Write a paragraph about the Moplah Rebellion?

VIII HOTs

Apart from the exploiting through taxes, how did the British further exploit the land?

IX Project and Activity

1. Point out the influence which shaped Gandhiji's ideas on Ahimsa and Satyagraha.
2. Organize exhibition in your school on the peasants conditions highlight the similarities between past and present.



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INTERNET RESOURCES

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- <https://www.ducksters.com/>
- https://en.wikipedia.org/wiki/Permanent_Settlement
- <https://en.wikipedia.org/wiki/Ryotwari>
- <https://en.wikipedia.org/wiki/Mahalwari>



Unit - 4

People's Revolt



Learning Objectives

- ▶ To know the Palayakkars (Poligar) system in Tamil Nadu
- ▶ To understand the role of PuliThevar and Kattabomman in the anti-British uprising
- ▶ To know about the South Indian Rebellion
- ▶ To know the causes and effects of Vellore Mutiny
- ▶ To understand the causes and impacts of Revolt of 1857



Introduction

The establishment of political and economic dominance by the British over many parts of India after the Battle of Plassey, 1757 disrupted the political, social and economic order of the country. This led to the divesting many landlords and chieftains of their power and estates. Naturally, many of them revolted against the British. The English assumed the right of collecting the annual tribute from the Palayakkars. The first resistance to the British was offered by the Pulithevar. Since then there had been rebellions by Palayakkars such as the Veerapandiya Kattabomman, Oomathurai, Marudu brothers and Dheeran Chinnamalai.

Origin of Palayam

The Vijayanagar rulers appointed Nayaks in their provinces. The Nayak of Madurai in turn appointed Palayakkars. Viswanatha became the Nayak of Madurai in 1529. He noticed that he could not control the chieftain who wanted more powers in their provinces. So

with the consultation of his minister Ariyanatha Mudaliyar, Viswanatha instituted Palayakkars system in 1529. The whole country was divided into 72 Palayams and each one was put under a Palayakkars. Palayakkars was the holder of a territory or a Palayam. These Palayams were held in military tenure and extended their full co-operation to be need of the Nayaks. The Palayakkars collected taxes, of which one third was given to the Nayak of Madurai another one third for the expenditure of the army and rest was kept for themselves.

Early revolts of South India

Revolt of the Palayakkars

During the 17th and 18th centuries the Palayakkars played a vital role in the politics of Tamil Nadu. They regarded themselves as independent. Among the Palayakkars, there were two blocs, namely the Eastern and the Western blocs. The Eastern Palayams were the Nayaks ruled under the control of Kattabomman and the Western palayams were the Maravas



THE REBEL CONFEDERACY 1799 - 1800



ruled under the control of Pulithevan. These two palayakkars refused to pay the kist (tribute) to the English and rebelled.

The early struggle between the Palayakkars and the East India Company had a strong political dimension. By the Carnatic treaty of 1792, consolidated the English power over the Palayakkars. The English got the right to collect taxes. The result was the outbreak of the revolt of Palayakkars.

Pulithevar

Pulithevar was the pioneer in Tamil Nadu, to protest against the English rule in India. He was the Palayakkarar of the Nerkattumseval, near Tirunelveli. During his tenure he refused to pay the tribute neither to Mohammed Ali, the Nawab of Arcot nor to the English. Further he started opposing them. Hence, the forces of the Nawab of Arcot and the English attacked Pulithevar. But the



combined forces were defeated by Pulithevar at Tirunelveli. Pulithevar was the first Indian king to have fought and defeated the British in India. After this victory Pulithevan attempted to form a league of the Palayakkars to oppose the British and the Nawab.

In 1759, Nerkattumseval was attacked by the forces of Nawab of Arcot under the leadership of Yusuf Khan. Pulithevar was defeated at Anthanallur and the Nawabs forces captured Nerkattumseval in 1761. Pulithevar who lived in exile recaptured Nerkattumseval in 1764. Later, he was defeated by Captain Campell in 1767. Pulithevar escaped and died in exile without fulfilling his purpose, although his courageous trail of a struggle for independence in the history of South India.

Virapandya Kattabomman

The Ancestors of Kattabomman belonged to Andhra. They migrated to Tamil country during the 11th century. As a feudatory under Pandyas, Jagaveerapandiaya Kattabomman ruled Virapandyapuram. Panchalankurichi was its capital. He later became a Poligar during the rule of Nayaks. He was succeeded by his son Veerapandya Kattabomman. His wife was Jakkammal and his brothers were Oomathurai and Sevathaiah.



Virapandya Kattabomman

Nawab of Arot

After the decline of the Vijayanagar empire, the mughals established their supremacy in the south. The Nawabs acted as their representatives in Karnataka. Panchalamkuruchi palayam was acted as an ally to the Nawab of Arcot. Hence it paid tribute to the Nawabs. But in 1792, the political condition had completely changed. Based on the Carnatic treaty of 1792, the company gained the right to collect taxes from Panchalamkuruchi. The collection of tribute was the main cause for the rivalry between the English and Kattabomman.

Kattabomman met Jackson

In 1798, Colin Jackson, the collector of Ramanathapuram wrote letters to Kattabomman asking him to pay the tribute arrears. But Kattabomman replied that he was not in a position to remit the tribute due to the famine in the country. Colin Jackson got angry and decided to send an expedition to punish Kattabomman. However, the Madras government directed the collector to summon the Palayakkars at Ramanathapuram and hold a discussion.



In 1798, Kattabomman and his minister Siva Subramaniam met the Collector at Ramanathapuram. Upon a verification of accounts, Colin Jackson was convinced that Kattabomman had cleared most of the arrears leaving only 1080 pagodas as balance. During this interview Kattabomman and his Minister, Sivasubramaniam, had to stand before the arrogant collector for three hours. The Collector insulted them and tried to arrest Kattabomman and his minister. Kattabomman tried to escape with his minister. Oomathurai suddenly entered the fort with his men and helped the escape of Kattabomman. But unfortunately Sivasubramaniam was taken as prisoner.

Edward Clive and Kattabomman

After his return to Panchalamkuruchi, Kattabomman wrote a letter to the Madras Council narrating the behaviour of the Collector Colin Jackson. Edward Clive, the Governor of Madras Council ordered Kattabomman to surrender. The Madras Council directed Kattabomman to appear before a Committee. Meanwhile, Edward Clive dismissed the Collector for his misbehaviour and released SivaSubramania. Kattabomman appeared before the Committee, and found Kattabomman was not guilty. S.R. Lushington was appointed collector in the place of Colin Jackson, who was eventually dismissed from service.



The confederacy of Palayakkars

During that time, Marudu Pandyan of Sivaganga formed the South Indian Confederacy of rebels against the British, along with the neighbouring Palayakkars. This confederacy declared a proclamation which came to be known as Tiruchirappalli Proclamation. Kattabomman was interested in this confederacy. He tried to establish his influence over Sivagiri, who refused to join with alliance of the rebels. Kattabomman advanced towards Sivagiri. But the Palayakkar of Sivagiri was a tributary to the Company. So the Company considered the expedition of Kattabomman as a challenge to their authority. So the Company ordered the army to march to Panchalamkuruchi.

Fall of Panchalamkuruchi

Major Bannerman moved his army to Panchalamkuruchi on 5th September. They cut off all the communications to the Fort. In a clash at Kallarpatti, Siva Subramaniyam was taken as a prisoner. Kattabomman escaped to Pudukottai. Vijaya Ragunatha Tondaiman, Raja of Pudukottai, captured Kattabomman from the jungles of Kalapore and handed over to the Company. After the fall of Panchalamkuruchi, Bannerman brought the prisoners to an assembly of the Palayakkars and after trial sentenced them to death. Sivasubramania was executed at Nagalapuram. On the 16th October ViraPandya Kattabomman was tried before an assembly of Palayakkars, summoned at Kayathar. On 17th October 1799, Kattabomman was hanged at the fort of Kayathar. Kattabomman's heroic deeds were the subject of many folk ballads which kept his memory alive among the people.

Velu Nachiyar

Velu Nachiyar was a queen of Sivagangai. At the age of 16, she was married to Muthu Vaduganathar, the Raja of Sivagangai. In 1772, the Nawab of Arcot and the British troops invaded Sivagangai. They killed Muthu Vaduganathar in Kalaiyar Koil battle. Velu Nachiyar escaped with her daughter Vellachi Nachiyar and lived under the protection of Gopala Nayaker at Virupachi

near Dindigul. During this period she organised an army and employed her intelligent agents to find where the British stored their ammunition. She arranged a suicide attack by a faithful follower Kuyili, a commander of Velu Nachiar. She recaptured Sivagangai and was again crowned as queen with the help of Marudu brothers. She was the first queen to fight against the British colonial power in India. She is known by Tamils as Veeramangai and also known as 'Jhansi Rani of South India.'



Velu Nachiyar

Marudu Brothers

Marudu brothers were the sons of Mookiah Palaniappan and Ponnathal. The elder brother was called Periya Marudu (Vella Marudhu) and the younger brother Chinna Marudu. Chinna Marudu was more popular and was called Marudu Pandiyan. Chinna Marudu served under Muthu Vaduganatha Peria Udaya Devar (1750-1772) of Sivaganga. In 1772 the Nawab of Arcot laid seige of Sivaganga and captured it. Muthu Vaduganatha Peria Udaya Devar, died in battle. However after a few months Sivaganga was re-captured by Marudu Brothers and Periya Marudu was enthroned as the ruler. Chinna Marudu acted as his adviser. Due to the terrorist activities against British, he was called as "Lion of Sivaganga". In the later half of the eighteenth century the rebellion against the British was carried by Marudu Brothers in South India.



Marudu Brothers

Causes for the conflict

Kattabomman was hanged to death and his brother Umaithurai and others fled to Sivaganga, where Marudu Pandya gave protection to them. The merchants of



Sivaganga did not like the interference of the company in their internal politics. The company waged war against Sivaganga for these two causes.

The South Indian Rebellion (1800-1801)

In February 1801 the brothers of Kattabomman, Oomathurai and Sevathaiah escaped from Palayamkottai prison and reached Kamudhi. Chinna Marudu took them to Siruvayal, his capital. They reconstructed their ancestral fort at Panchalamkurichi. The British troops under Conlin Macaulay retook the fort in April and the Palayakkarar brothers sought shelter in Sivaganga. The English demanded Marudu Pandyas to hand over the fugitives, the latter refused. Conlonel Agnew and Colonel Innes marched against them.

The Palayakkarar War assumed a much broader character than its predecessor. It was directed by a confederacy consisting of Marudu Pandiar of Sivaganga, Gopala Nayak of Dindugal, Kerala Varma of Malabar and Krishnappa Nayak and Dhoondaji of Mysore. The English declared war against the confederacy.

The Tiruchirappalli Proclamation (1801)

The Marudu Pandyas issued a proclamation of Independence called Tiruchirappalli Proclamation in June 1801. The Proclamation of 1801 was the first call to the Indians to unite against the British. A copy of the proclamation was pasted on the walls of the Nawab's palace in the fort of Tiruchi and another copy was placed on the walls of the Vaishnava temple at Srirangam. Thus Marudu brothers spread the spirit of opposition against the English everywhere. As a result many Palayakkars of Tamil Nadu went on a rally to fight against the English. Chinna Marudu collected nearly 20,000 men to challenge the English army. British reinforcements were rushed from Bengal, Ceylon and Malaya. The rajas of Pudukkottai, Ettayapuram and Thanjavur stood by the British. Divide and rule policy followed by the English spilt the forces of the Palayakkars.

English annexed Sivagangai

In May 1801, English attacked the rebels in Thanjavur and Tiruchi areas. The rebels went to Piranmalai and Kalayarkoil. They were again defeated by the forces of the English. In the end, the superior military strength and the able commanders of the British army won the battle. The rebellion failed and English annexed Sivagangai in 1801. The Marudu brothers were executed in the Fort of Tirupathur in Ramanathapuram District on 24 October 1801. Oomathurai and Sevathaiah was captured and beheaded at Panchalamkuruchi on 16 November 1801. Seventy three rebels were sentenced to Penang in Malaya, then called the Prince of Wales Island. Though they fell before the English, they were the pioneers in sowing the seeds of nationalism in the land of Tamil.

Thus the South Indian Rebellion is a landmark in the history of Tamil Nadu. Although the 1800-1801 rebellion was to be categorized in the British records as the Second Palayakkarar War. Under the terms of the Karnataka Treaty on 31 July 1801, the British assumed direct control over Tamil Nadu. The Palayakkarar system was abolished.

Dheeran Chinnamalai

Dheeran Chinnamalai was born at Melapalayam in Chennimalai near Erode. His original name was Theerthagiri. He was a palayakkarar of Kongu country who fought the British East India Company. The Kongu country comprising Salem, Coimbatore, Karur and Dindigul formed a part of the Nayak kingdom of Madurai but had been annexed by the Wodayars of Mysore. After the fall of the Wodayars, these territories along with Mysore were controlled by the Mysore Sultans. After the third and fourth Mysore wars the entire Kongu region passed into the hands of the English.

Dheeran Chinnamalai was trained by French military in modern warfare. He was along the side Tippu Sultan to fight against the British East India Company and got victories against the British. After Tippu Sultan's death Chinnamalai settled down at Odanilai and constructed a fort



there to continue his struggle against the British. He sought the help of Marathas and Maruthu Pandiyar to attack the British at Coimbatore in 1800. British forces managed to stop the armies of the allies and hence Chinnamalai was forced to attack Coimbatore on his own. His army was defeated and he escaped from the British forces. Chinnamalai engaged in guerrilla warfare and defeated the British in battles at Cauvery, Odanilai and Arachalur. During the final battle, Chinnamalai was betrayed by his cook Nallapan and was hanged in Sankagiri Fort in 1805.

Vellore Revolt (1806)

The family members of Tippu were imprisoned at Vellore fort after the fourth Mysore war. Some three thousand ex-servants and soldiers of Hyder and Tippu had also been moved to the vicinity of Vellore and their property in Mysore confiscated. It was quite natural that they were all unhappy and they hated the English.



Vellore Fort

The Vellore fort consisted of large majority of Indian troops, a good part of it recently been raised in Tirunelveli after the Palayakarar uprising of 1800. Many of the trained soldiers of the various Palayams were admitted into the English army. Thus the Vellore fort became the meeting ground of the rebel forces of South India.

In 1803, William Cavendish Bentinck became Governor of Madras. During his period certain military regulations were introduced in 1805-06 and were enforced by the Madras Commander-in-Chief Sir John Cradock. But the sepoys felt that these were designed to insult them.

Causes for the revolt

- The strict discipline, new weapons, new methods and uniforms were all new to the sepoys.
- The sepoys were asked to shave the beard and to trim the moustache.
- The wearing of religious mark on the forehead and the use of ear-rings were also banned.
- The English treated the Indian sepoys as their inferior. There was the racial prejudice.

Immediate Cause

In June 1806, military General Agnew introduced a new turban, resembling a European hat with a badge of cross on it. It was popularly known as 'Agnew's turban'. Both the Hindu and Muslim soldiers opposed it. So the soldiers were severely punished by the English.

Course of the Revolt

The Indian soldiers were waiting for an opportunity to attack the English officers. Tippu's family also took part. Fettah Hyder, the elder son of Tippu, tried to form an alliance against the English. On July 10th in the early morning the native sepoys of the 1st and 23rd Regiments started the revolt. Colonel Fancourt, who commanded the garrison, was their first victim. The fort gates were closed. Meantime, the rebels proclaimed Futteh Hyder, as their new ruler. The British flag in the fort was brought down. The tiger-striped flag of Tippu Sultan was hoisted on the fort of Vellore.

Suppression of the Revolt

Major Cootes who was outside the fort rushed to Ranipet and informed Colonel Gillespie. Col. Gillespie reached Vellore fort. He made an attack on the rebel force. The revolt was completely suppressed and failed. Peace was restored in Vellore. On the whole, 113 Europeans and about 350 sepoys were killed in the uprising. The revolt was suppressed within a short period. It was one of the significant events in the history of Tamil Nadu.



Effects of the Vellore Revolt

- The new methods and uniform regulations were withdrawn.
- The family of Tippu as a precautionary measure was sent to Calcutta.
- William Cavendish Bentinck was removed from his service.

Causes for the failure of the Revolt

- There was no proper leadership to guide the soldiers properly.
- The rebellion was also not well organised.
- Divide and Rule policy of the English, split the unity of the Indians.

V.D. Savarkar calls the Vellore revolt of 1806 as the prelude to the first War of Indian Independence in 1857.

The Revolt of 1857

The early uprisings did not succeed in threatening the British in India. It took the Revolt of 1857 to bring home to the Company and the British thought that their rule was not accepted to a large section of the population. The Revolt of 1857 was a product of the character and the policies of colonial rule. The cumulative effect of British expansionist policies, economic exploitation and administrative innovations over the years had adversely affected the positions of all rulers of Indian states.



Causes of the Revolt

- The most important cause of revolt 1857 was a popular discontent of the British policy of economically exploiting India. This hurt all sections of society. The peasants suffered due to high revenue demands and the strict revenue collection policy.
- Policies of doctrine of lapse, subsidiary alliance and policy of Effective Control created discontentment among people. Annexation of Oudh proved that even the grovelling loyalty can't satisfy British greed for territories.

- The conversion activities of Christian missionaries were looked upon with suspicion and fear. The priests and the maulavis showed their discontent against the British rule.
- Abolition of practices like sati, female infanticide, support to widow remarriage and female education were seen by many as interference in their Indian culture by the Europeans.
- The Indian sepoys were looked upon as inferior beings and treated with contempt by their British officers. They were paid much less than the British soldiers. All avenues of the promotion were closed to them as all the higher army posts were reserved for the British.

Immediate cause

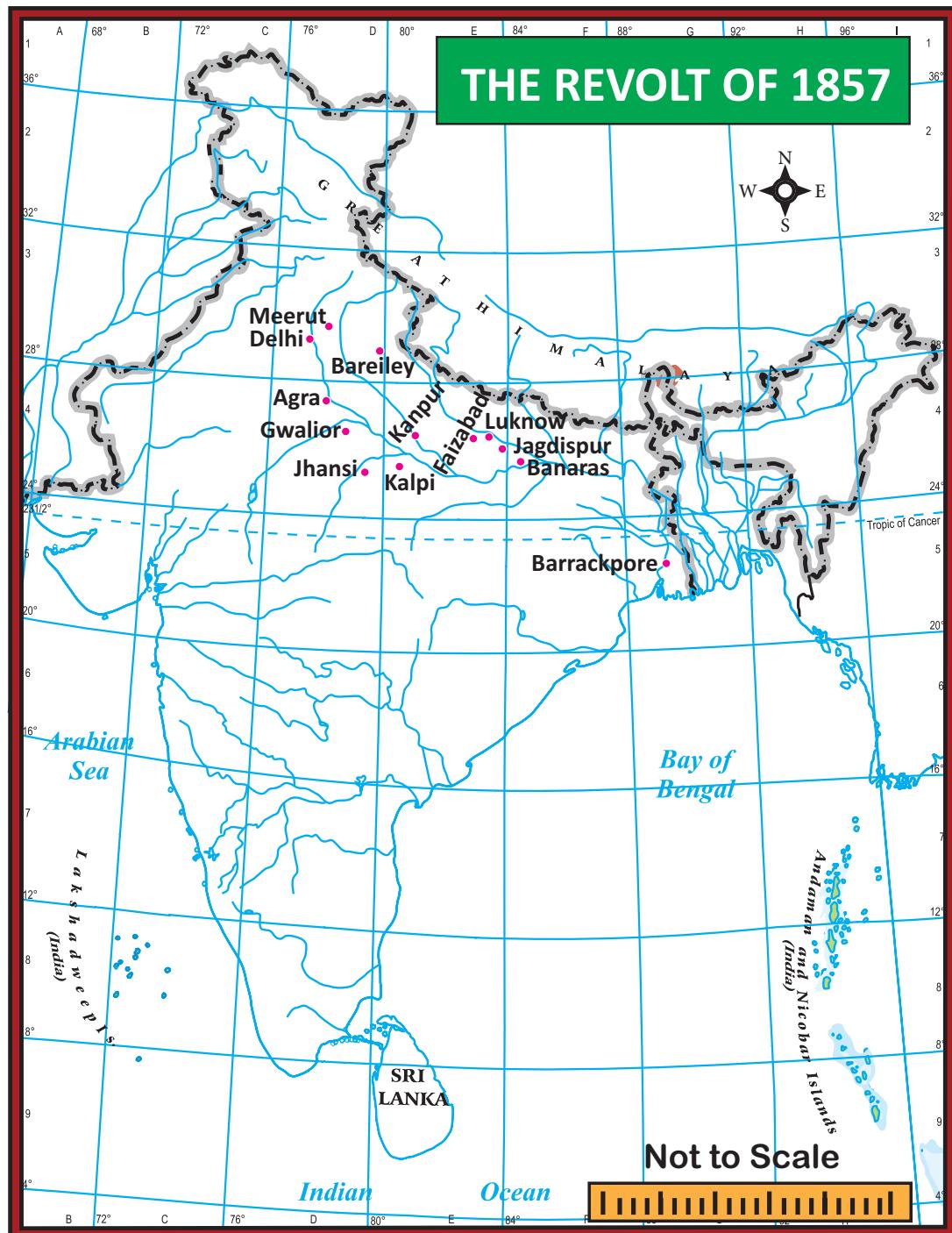
The immediate cause was the introduction of new Enfield Rifles in the army. The top of the cartridge of this rifle was to be removed by the mouth before loading it in the rifle. The cartridges were greased by the fat of pig and the cow. The Indian sepoys believed that the British were deliberately attempting to spoil the religion of both the Hindus and the Muslims because while the Hindus revered the cow, the Muslims hated the pig. The soldiers, therefore, determined to refuse their service and, ultimately revolted. Thus, the primary and the immediate cause of the revolt was the use of the greased cartridges.

The Outbreak of the Revolt

On 29 March 1857 at Barrackpur (near Kolkata) Mangal Pandey, a young Sepoy from Bengal Regiment, refused to use the greased cartridge, and shot down his sergeant. He was arrested, tried and executed. When this news spread many sepoys revolted.



Mangal Pandey



Course of the Revolt

On 10 May 1857, the Sepoys of the third cavalry at Meerut openly revolted by swarming the prisons and releasing their comrades. They were immediately joined by the men of the 11th and 20th Native Infantries, and they murdered some English officers and then marched to Delhi. The arrival of Meerut sepoys at Delhi on 11th May and declared of Bahadur Shah II as the Emperor of India. Delhi became the centre of the Great Revolt and Bahadur Shah, its symbol.

The revolt spread quickly. There were mutinies at Lucknow, Kanpur, Jhansi, Bareilly, Bihar, Faizabad, and many other places in north India. Many of them found that it was a good opportunity to burn the papers of their landlords. Many others whose titles and pensions were abolished by the British who participated in it, in order to take revenge. The Muslim leaders and Maulvis sought the opportunity of establishing the Muslim rule in India after turning out the British.



In Central India the revolt was guided by Rani Lakshmi Bai of Jhansi. She was one of the greatest patriots of India. Sir Hugh Rose occupied Jhansi. Rani Lakshmi Bai fled from Jhansi and joined hands with Tantia Tope who had assumed the leadership of the rebel army at Gwalior. But the British captured Gwalior in June 1858. Rani was killed in the battle. Tantia Tope fled away but was captured and later executed. According to the British historians, present at the time of revolt, Rani Lakshmi Bai was the best and the bravest among the leaders of the Revolt of 1857.

Suppression of the Revolt

Lord Canning, the governor-general took immediate steps to suppress the revolt. He collected the forces of Madras, Bombay, Sri Lanka and Burma. On his own initiative, he called the British army which was deputed to China by Britain to Calcutta. He ordered the loyal Sikh army to proceed to Delhi immediately. The British regained their lost positions very soon.

Delhi was recaptured by General John Nicholson on 20 September, 1857 and deportation of Bahadur Shah II to Rangoon where he died in 1862. Military operations with the recovery of Kanpur were closely associated with the recovery of Lucknow. Sir Colin Campbell occupied Kanpur. Nana Saheb was defeated at Kanpur and escaped to Nepal. His close associate Tantia Tope escaped to central India, was captured and put to death while asleep. The Rani of Jhansi had died in the battle-field. Kunwar Singh, Khan Bahadur Khan were all dead, while the Begum of Awadh was compelled to hide in Nepal. The revolt was finally suppressed. By the end of 1859, British authority over India was fully re-established.

Places of Revolt	Indian Leaders	British Officials who suppressed the revolt
Delhi	Bahadur Shah II	John Nicholson
Lucknow	Begum Hazrat Mahal	Henry Lawrence
Kanpur	Nana Saheb	Sir Colin Campbell
Jhansi & Gwalior	Lakshmi Bai, Tantia Tope	General Hugh Rose
Bareilly	Khan Bahadur Khan	Sir Colin Campbell
Bihar	Kunwar Singh	William Taylor

The Causes for the Failure of the Revolt

Various causes were responsible for the failure of the revolt.

- Lack of organisation, discipline, common plan of action, centralised leadership, modern weapons and techniques.
- The rebel leaders were no match to the British Generals. Rani Lakshmi Bai, Tantia Tope and Nana Saheb were courageous but they were not good generals.
- Non-participation of Bengal, Bombay, Madras, western Punjab and Rajputana.
- The modern educated Indians did not support the Revolts as they believed that only British rule could reform Indian society and modernize it.
- The British managed to get the loyalty of the Sikhs, Afghans and the Gurkha regiments. The Gurkhas actually helped the British in suppressing the revolt.
- The British had better weapons, better generals, and good organisation.

Consequences of the Revolt

- The Revolt of 1857 marked a turning point in the history of India. It led to changes in the system of administration and the policy of the Government.
- The administration of India was transferred from the East India Company to the British Crown through the 'Queen's Proclamation' in 1858.



- The governor general was given the title of viceroy.
- The Board of Directors and the Board of Control were replaced by the Council of 15 members headed by the Secretary of State to supervise Indian affairs.
- The Indian Army was thoroughly reorganised. More Britishers were employed in the army.
- The British military policy came to be dominated by the idea of 'divide and counterpoise'.

Infact, the Revolt of 1857 played an important role in bringing the Indian people together and imparting them the consciousness of belonging to one country. The Revolt paved the way for the rise of the modern national movement. It was at the beginning of the twentieth century that the 1857 Revolt came to be interpreted as a "planned war of national independence", by V.D. Savarkar in his book, First War of Indian Independence.

Recap

- The Vijayanager rulers appointed Nayaks in their provinces.
- The Nayak of Madurai in turn appointed Palayakkars.
- The English got the right to collect taxes and the result was the outbreak of the revolt of Palayakkars.
- The collection of tribute was the main cause for the rivalry between the English and Kattabomman.
- Marudu brothers were the sons of Mookiah Palaniappan and Ponnathal.
- Dheeran Chinnamalai was trained by French military in modern warfare.
- Tippu Sultan fought against the British East India Company.
- Rani Lakshmi Bai was the best and the bravest among the leaders of the Revolt of 1857.

GLOSSARY

Beheaded	hanged to death	தூங்கிலீடு
Betrayed	give away information about somebody	காட்டிக்கொடு
Cartridge	bullet	தோட்டா
Eventually	in the end	முடிவாக
Infantry	an army unit consisting of soldiers who fight on foot	காலாட்படை
Tribute	payment made periodically by one state	கப்பம்
Swarm	crowd	கூட்டம்



Evaluation

I. Choose the correct answer

1. The Palayakkars system was instituted in
a) 1519 b) 1520
c) 1529 d) 1530



2. Which of the following Palayakkars of Tamil Nadu was the pioneer against the English rule
a) Pulitevan
b) Yusuf Khan
c) Kattabomman
d) Marudhu brothers
3. Colin Jackson was the collector of
a) Madurai b) Tirunelveli
c) Ramanathapuram d) Tuticorin



4. Veera Pandiya Kattabomman was hanged at the fort of
a) Panchalamkurichi b) Sivagangai
c) Tiruppathur d) Kayathar
5. Velu Nachiyar was a queen of
a) Nagalapuram b) Sivagiri
c) Sivagangai d) Virupachi
6. Tiruchirapalli proclamation was issued by
a) Marudhu Pandiyars
b) Krishnappa Nayak
c) Velu Nachiyar
d) Dheeran Chinnamalai
7. Which of the following place was associated with Dheeran chinnamalai
a) Dindigul b) Nagalapuram
c) Pudukottai d) Odanilai
8. Rani Lakshmi Bai led the revolt at
a) Central India b) Kanpur
c) Delhi d) Bareilly

II Fill in the Blanks

1. The Eastern Palayms were ruled under the control of _____.
2. Vishwanatha Nayakar instituted the Palayakarar system with the consultation of his minister _____.
3. The ancestors of Kattabomman belonged to _____.
4. _____ was known by Tamils as Veera mangai and Jhansi Rani of south india.
5. _____ was called as 'lion' of sivagangai.
6. _____ was described the revolt of 1857 as First War of India Independence.

III Match the following

1.	Delhi	Kunwar singh
2.	Kanpur	Khan Bahudar Khan
3.	Jhans	Nana Saheb
4.	Bareilly	Lakshmi Bai
5.	Bihar	Bahadur Shah II

IV State true or false

1. The Vijayanagar rulers appointed Nayaks in their provinces.
2. Sivasubramania was the minister of Marudhu pandiyas.
3. Kattabomman was hanged on 17th October 1799.
4. Fettah Hyder was the elder son of Tippu Sultan.

V. Consider the following statements and tick (✓) the appropriate answer

- i) The Vellore revolt was held in 1801.
ii) The family members of Tippu were imprisoned at Vellore fort after the fourth Mysore war.
iii) At the time of Vellore revolt, the Governor of Madras was Lord William Bentinck.
iv) The victory of revolt of Vellore against British was one of the significant event in the history of India.
a) i & ii are Correct
b) ii & iv are Correct
c) ii & iii are correct
d) i, ii & iv are correct

a) Find out the wrong pair

1. Marudu Pandiyar - Ettayapuram
2. Gopala Nayak - Dindigul
3. Kerala Varma - Malabar
4. Dhoondaji - Mysore



b) Find out the odd one

Kattabomman, Oomaithurai,
Sevathaiah, Tippu Sultan.

VI Answer the following in one or two sentences

- 1.What you know about the Palayakarars?
Name some of them.
- 2.What was the part of Velu Nachiyar in the Palayakkarar revolt?
- 3.Who were the leaders of Palayakkarar confederacy in the south Indian rebellion?
- 4.What was the importance of Tiruchirappalli proclamation?
- 5.Bring out the effects of the Vellore revolt.
- 6.What was the immediate cause of the Revolt of 1857?

VII Answer the following in detail.

- 1.What do you know about the Pulithevar?
- 2.Explain the events that led to conflict between Dheeran Chinnamalai and the british.
- 3.What were the causes for the Great revolt of 1857?
- 4.What were the causes for the failure of the Revolt of 1857?

VIII HOTs

Prove that there was no common purpose among the leaders of the Great revolt of 1857.

IX Map skill

On the River map of India mark the following centres of the revolt of 1857.

- | | |
|-----------|----------------|
| 1) Delhi | 2) Lucknow |
| 3) Meerut | 4) Barrackpore |
| 5) Jhansi | 6) Gwalior |
| 7) Kanpur | |

X Project and Activity

collect pictures of Palayakkars and prepare an album.



REFERENCE BOOKS

- 1.Rajayyan, K. - *South Indian rebellion : The First War of Independence 1800-1801*, Mysore : Rao and Raghavan, Mysore 1971
- 2.Bipan Chandra - *History of Modern India*, Orient Blackswan Private Limited 2018
- 3.Ishita Banerjee-Dube - *A History of Modern India*, Cambridge University Press 2014



INTERNET RESOURCES

- <https://www.britannica.com>
- <https://www.ducksters.com/>
- https://en.wikipedia.org/wiki/Vellore_mutiny
- https://en.wikipedia.org/wiki/Indian_Rebellion_of_1857



Unit - 1

Rocks and Soils



Learning Objectives

- ▶ To understand the nature of rocks, their types and uses.
- ▶ To learn to identify the different types of rocks.
- ▶ To study about the nature of soil and its composition
- ▶ To understand the importance of soil conservation



Introduction

Have you ever noticed any mountains or rocks nearby your location or during your travel? Have you ever been to any hill station during your vacation? Do you know how they originated on the earth surface? Do you know what kinds of material are used in the construction of temples, buildings, roads, flyovers etc. In this lesson, we will learn about rocks and soils.

In lower classes, we have studied about four realms of the earth, namely lithosphere, hydrosphere, atmosphere and biosphere. Lithosphere is the upper most and significant layer of the earth. It is composed of solid rocks and unconsolidated materials. The literal meaning of lithosphere is “**The sphere of rock**”.



Petrology is a branch of geology which deals with the study of rocks. ‘Petrology’ is derived from the Greek word “Petrus” refers to rock and “Logos” refers to study

Find out

What is the base of the house made up of?

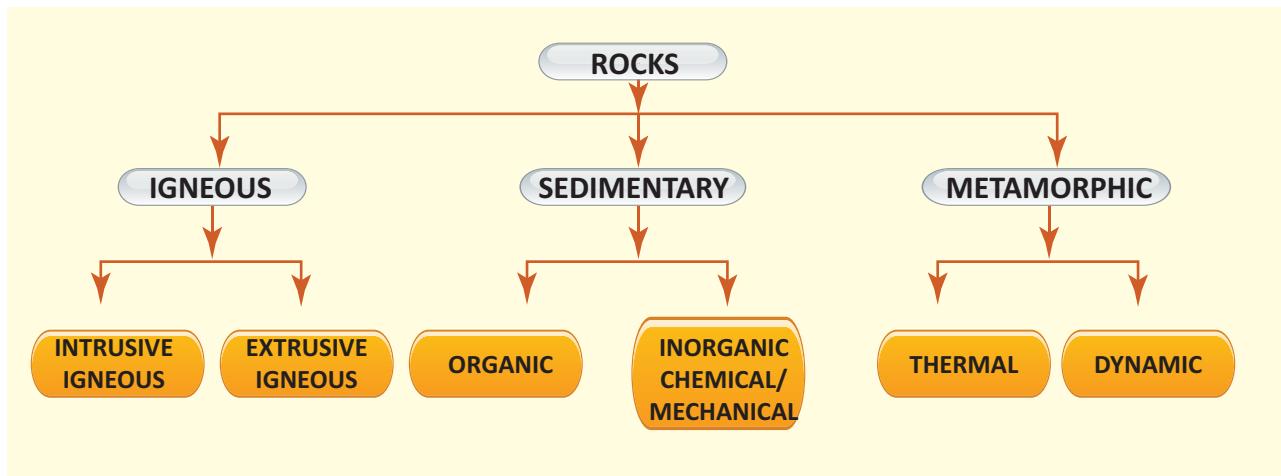
Rocks

The rocks are the solid mineral materials forming a part of the surface of the earth and other similar planets. The earth’s crust (Lithosphere) is composed of rocks. A rock is an aggregate of one or more minerals. Rock is an important natural resource and is found in solid state. It may be hard or soft in nature. An estimation reveals that there are 2,000 different types of minerals found on the earth surface out of which only 12 are the basic minerals commonly found all over the earth. Minerals are chemical substances which exist in nature. They may occur either in the form of elements or compounds.

Classification of Rocks

According to the mode of formation the rocks are classified into three types as follows.

1. Igneous Rocks
2. Sedimentary Rocks and
3. Metamorphic Rocks



Igneous Rocks

The igneous rocks are formed by the solidification of molten magma. These rocks are also called as the 'Primary Rocks' or 'Parent Rocks' as all other rocks are formed from these rocks.



Igneous rock



The word **Igneous** is derived from the Latin word 'Ignis' means 'fire'

Characteristics of Igneous Rocks

1. These rocks are hard in nature
2. These are impermeable
3. They do not contain fossils
4. They are associated with the volcanic activities
5. These rocks are useful for construction works

Types of Igneous Rocks

Igneous Rocks are of two types. They are:

1. Extrusive Igneous Rocks
2. Intrusive Igneous Rocks

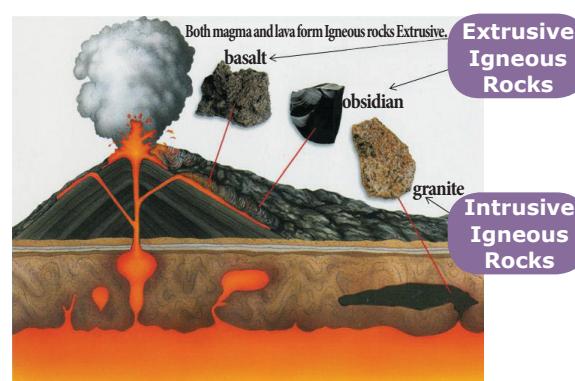
1. Extrusive Igneous Rocks

Can you visualize the lava comes out from a volcano? Lava is actually a fiery red molten magma comes out from the interior of the

earth on its surface. After reaching the earth surface the molten materials get solidified and form rocks. Rocks formed in such a way on the crust are called Extrusive igneous rocks. These rocks are fine grained and glassy in nature due to rapid solidification. Basalt found in the north western part of peninsular India is the example for this type of rock.

2. Intrusive Igneous rocks

The molten magma sometimes cools down deep inside the earth's crust and becomes solid. The rocks formed this way is called '**Intrusive Igneous Rocks**'. Since they cool down slowly, they form large grains. Intrusive Igneous rocks are of two types. The deep seated rocks are called '**Plutonic rocks**' and the ones formed at shallow depths are called '**Hypabysal rocks**'. Granite, Diorite and Gabbro are the examples of plutonic rocks and Dolerite is an example of hypabysal rocks. Since the intrusive Igneous rocks consist of large crystals, they are also called as '**Crystalline rocks**'.



Extrusive & Intrusive Igneous rocks



Some major Active Volcanoes: Mount Vesuvius, Mt. Stromboli and Mt. Etna in Italy and Mauna Loa and Mauna Kea in Hawaii Islands.

Sedimentary Rocks

The word '**Sedimentary**' has been derived from Latin word '**Sedimentum**' means settling down. The sedimentary



Sedimentary Rocks

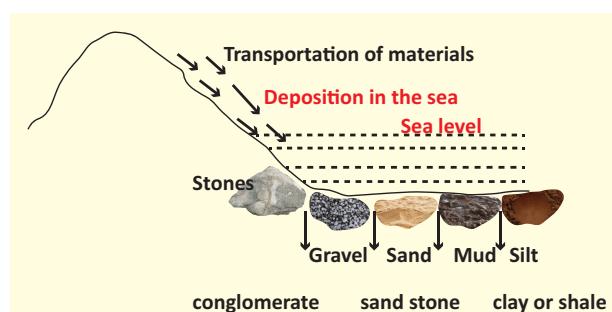
rocks are formed by the sediments derived and deposited by various agents. Due to high temperature and pressure, the undisturbed sediments of long period cemented to form sedimentary rocks. Sedimentary rocks consist of many layers which were formed by the sediments deposited at different periods. As it consists of many strata, it is also known as '**Stratified rocks**'.



Sedimentary rocks are the important source of natural resources like coal, oil and natural gas.

Characteristics of Sedimentary rocks

1. They have many layers.
2. They are non-crystalline rocks.
3. They contain fossils.
4. They are soft and get eroded easily



Formation of Sedimentary Rocks



Oldest sedimentary rocks of the world has been identified in Greenland and estimated as 3.9 billion years old.

Types of Sedimentary Rocks

1. Organic Sedimentary Rocks

These rocks are formed as a result of the decomposition of dead plants and animals. It contains fossils. Chalk, Talc, Dolomite and Limestone rocks are of this category.

2. Mechanical Sedimentary Rocks

These rocks are formed from the disintegration of igneous and metamorphic rocks. The natural agents erode and transport these rocks and deposit them at some places. After a long period of time, they cemented to form rocks. Sandstone, Shale and Clay are the examples of rocks of this type.

3. Chemical Sedimentary rocks

These are formed by precipitating of minerals from water. It is formed usually through evaporation of chemical rich solutions. These rocks are also called as evaporates. Rock Salt is an example of this kind.

Metamorphic Rocks

The word Metamorphic is derived from two Greek words "Meta" and "Morpha", Meta means change and Morpha means shape. When Igneous and sedimentary rocks subject to high temperature and pressure, the original rocks get altered to form a new kind of rock called metamorphic rocks. Metamorphism is of two types. They are 1. Thermal Metamorphism: If the change in the rocks is mainly caused by high temperature, the process is called as thermal metamorphism. 2. Dynamic Metamorphism: If the change in the rock is mainly caused by high pressure, the process is called as Dynamic Metamorphism.



One of the world wonders Taj Mahal in India was built by White Marble in a metamorphic rock.



Metamorphic Rock

Formation of Metamorphic Rocks from Igneous rocks

1. Granite into gneiss caused by dynamic metamorphism.
2. Basalt into slate caused by thermal metamorphism.

Formation of Metamorphic Rocks from Sedimentary rocks

1. Sandstone into quartz caused by thermal metamorphism.
2. Shale into slate caused by thermal metamorphism.

Characteristics of Metamorphic Rocks

1. Metamorphic rocks are mostly crystalline in nature.
2. They consist of alternate bands of light and dark minerals.

Rock cycle

Igneous rocks are the primary rocks formed first on the earth. These rocks are weathered, eroded, transported and deposited at some places to form sedimentary rocks. The Igneous and Sedimentary rocks are changed into metamorphic rocks under the

influence of temperature and pressure. The metamorphic rocks are also get disintegrated and deposited to form sedimentary rocks. Formation of igneous rocks take place when there is an outflow of molten materials. Like this, the rocks of the earth crust keeps on changing from one form to another form under various natural forces and agents. The endless process is referred as **Rock Cycle**.



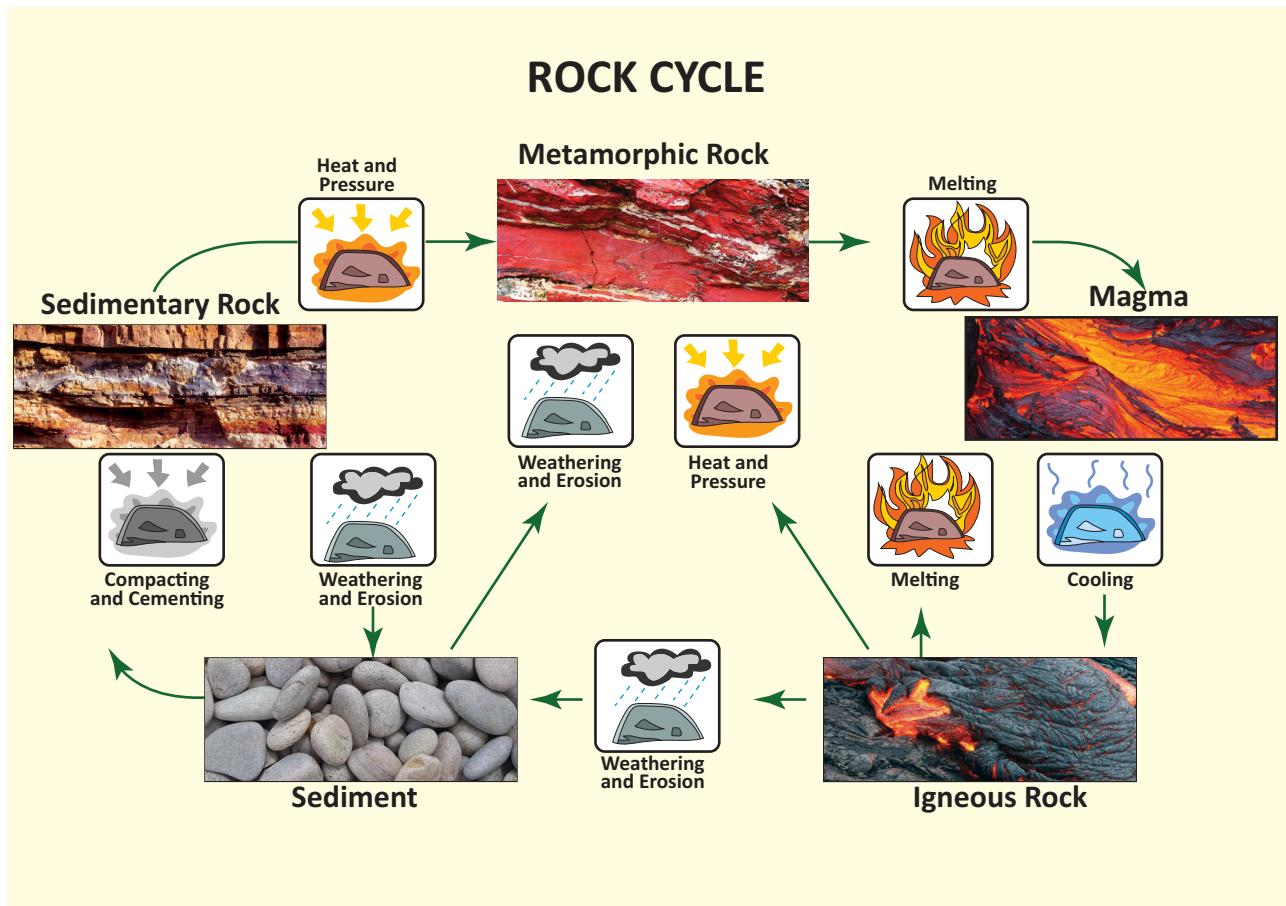
Quartzite and Marble are the rocks commonly used for construction and sculpture works. Marbles are widely used for making beautiful statues and decorative items such as vase, tiny gift articles and grinded marble is used to produce plastics, paper etc.,

Uses of rocks

Rocks have been used by mankind throughout the history. Rocks are highly valuable and important to almost all aspects of our economy. The minerals and metals in rocks have been found essential to human civilization. Rocks are used for many purposes in our life and some of them are given below

Rocks are useful for making

1. cement
2. Writing chalk
3. Fire
4. Building materials
5. Bath scrub
6. Kerb stone
7. Ornament
8. Roofing materials
9. Decorative materials
10. These are valuable source of minerals such as gold, diamond, sapphire etc.

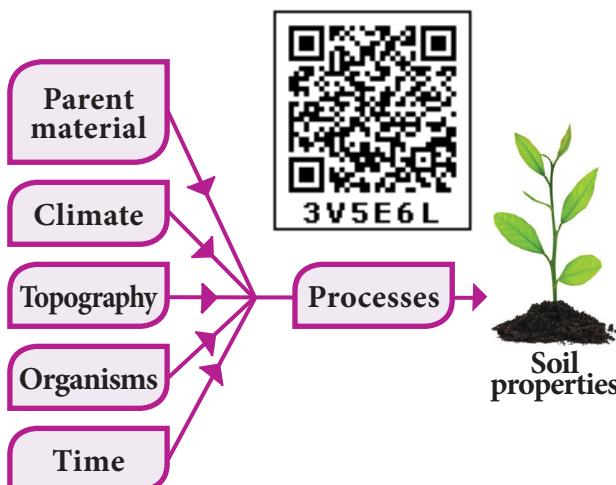


Rock Cycle

ACTIVITY

Collect different types of rocks and display them in the class room

Soil and its Formation



Soil is a mixture of organic matter, minerals, gases, liquids and organisms that together support life. **Soil** minerals form the basis of soil. It forms on the surface of the earth. It is known as the '**skin of the earth**'. Soils are produced from rocks (parent material) through the **processes** of weathering and natural erosion. Water, wind, temperature change, gravity, chemical interaction, living organisms and pressure differences all help break down parent material. It leads to the formation of loose material. In course of time, they further break down into fine particles. This process release the minerals locked in the rock fragments. Later on, the vegetative cover which develop in that region forms humus content in the soil. This way the soil gets matured gradually.

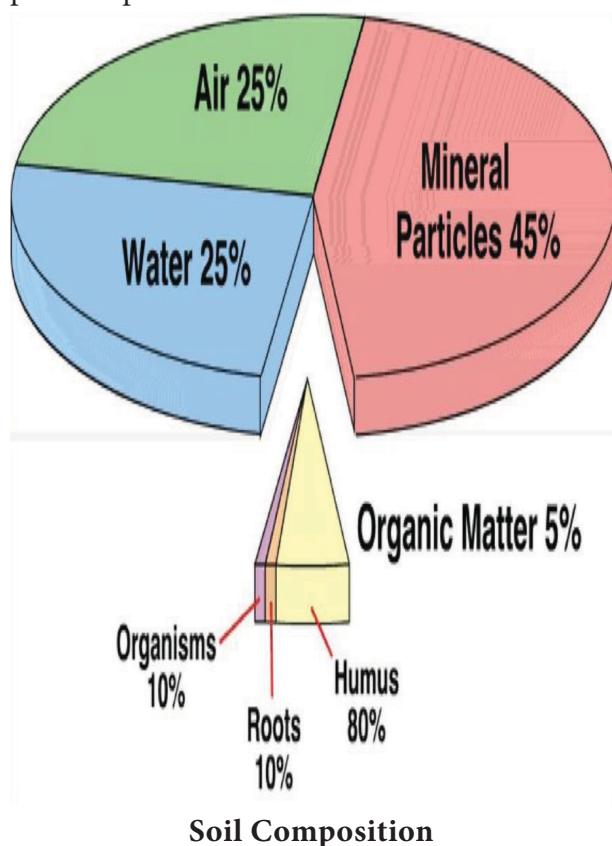


World Soil Day is observed on 5th December, every year



Soil Composition

The basic components of soil are mineral, organic matter, water and air. It consists of about 45% mineral, 5% organic matter, 25% of water and 25% air. It is only a generalized fact. The composition of soil varies from place to place and time to time.



Soil profile

The soil profile is defined as the vertical section of the soil from the ground surface and extends downwards.

ACTIVITY

Collect samples of soil from your place and exhibit in the class room.

Classification of soils

Soils are classified on the basis of their formation, colour, physical and chemical properties. Based on these, soil is classified into six major types. They are: Alluvial soil, Black soil, Red soil, Laterite soil, Mountain soil, Desert soil

Alluvial soil

These soils are found in the regions of river valleys, flood plains and coastal regions. These are formed by the deposition of silt by the running water. It is the most productive of all soils. It is suitable for the cultivation of sugarcane, jute, rice, wheat and other food crops.

Black soils

These soils are formed by weathering of igneous rocks. Black soil is clayey in nature. It is retentive of moisture. It is ideal for growing cotton.

Red Soils

These soils are formed by weathering of metamorphic rocks and crystalline rocks. The presence of iron oxide makes this soil brown to red in colour. It is usually found in semi-arid regions. It is not a fertile soil. It is suitable for millet cultivation.

Laterites soils

These are the typical soils of tropical regions. These soils are found in the regions which experienced alternate wet and dry condition. As these soils are formed by the process of leaching, it is infertile. It is suitable for plantation crops of tea and coffee.

Mountain soils

These soils are found over the slopes of mountain. Soils in these regions are thin and acidic. However characteristic of soil differs from region to region based on the altitude.

Desert soils

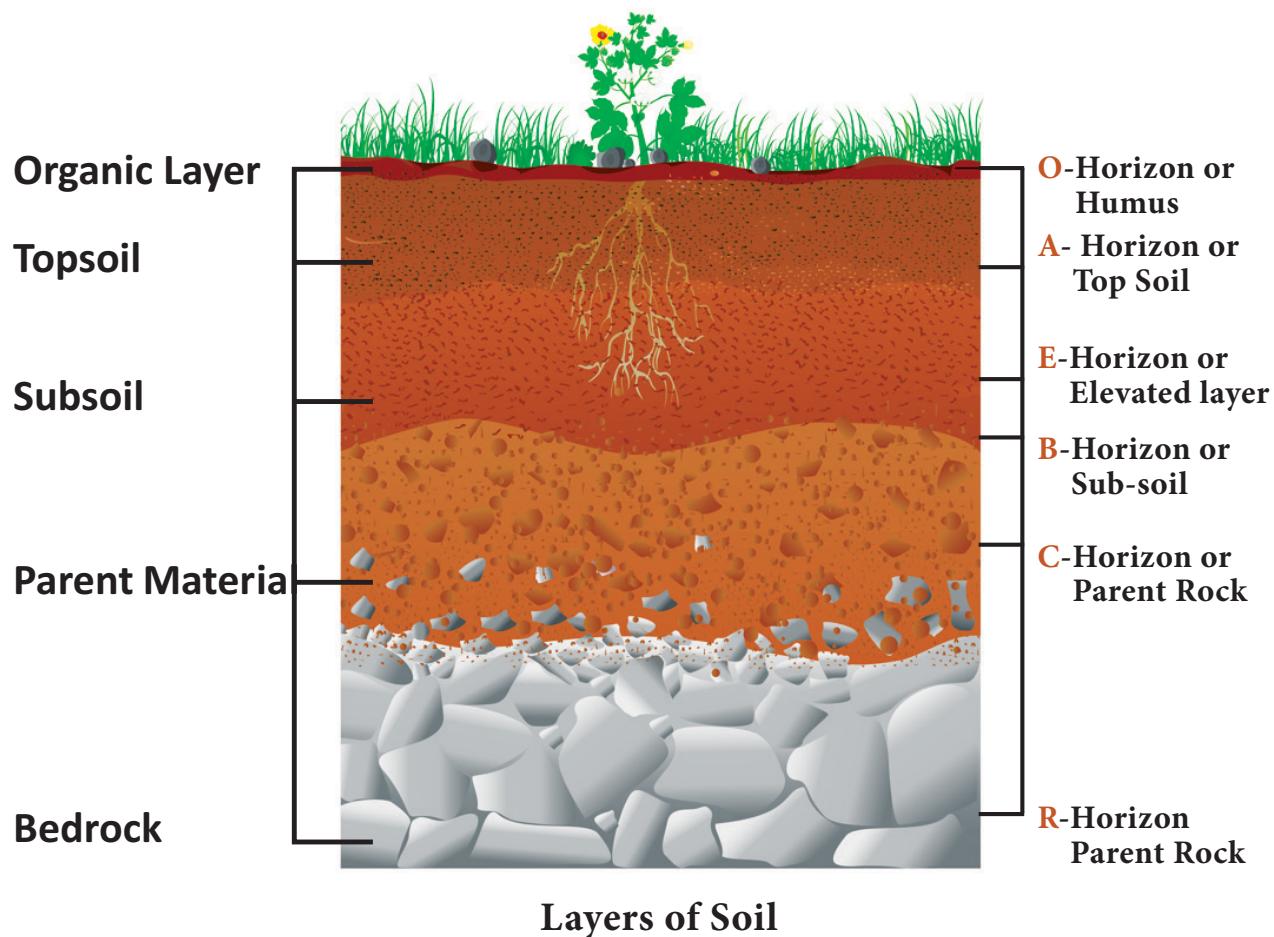
These are sandy soil found in the hot desert regions. These soils are porous and saline. Since it is infertile agriculture in these soils are not so successful.

Soil Erosion

Soil erosion is the removal or destruction of the top layer of soil by natural forces and human activities. Soil erosion reduces the



LAYERS OF SOIL



Layers of soil	
O-Horizon or Humus	This layer is dominated by organic material (leaves, needles, twigs, moss and lichens).
A- Horizon or Top Soil	It is a part of top soil, composed of organic matter mixed with mineral matter.
E- Horizon or Elevated layer	E-Stands for elevated layer. This layer is significantly leached of clay, iron, and aluminum oxides, which leaves a concentration of ore
B- Horizon or Sub-soil	This layer reflects the chemical or physical alteration of parent material. Thus iron, clay, aluminum and organic compounds are found accumulated in this horizon.
C- Horizon or Parent Rock	Partially weathered parent material accumulates in this layer.
R- Horizon Parent Rock	This layer consists of unweathered part of bed rock.

fertility of soil which in turn reduces the agricultural productivity. Running water and wind are the major agents of soil erosion. Sheet erosion, Rill erosion and Gully erosion are the major types of soil erosion.

Soil conservation

Soil conservation is the process of protecting the soil from erosion to maintain its fertility. The methods that are widely practiced for conserving soil are afforestation, controlled grazing, construction of dams,



How long does it take to form soil?

The time needed to form a soil depends on the Climate. The environments which is characterized by mild climate, takes 200-400 years to form one cm of soil and in wet tropical area, soil formation is faster and takes upto 200 years. To become a well matured soil, it takes about 3000 years.

Crop rotation, Strip farming, contour ploughing, terrace farming, checking shifting cultivation, wind break etc.,

Uses of soils

Soil is one of the important natural resource. It is a basic requirement for plant growth and supports various life forms on the earth.

- The minerals present in the soil enhance and nourishes the crops and plants.

- It is used in making of ceramics or pottery.
- It is a source of material for construction and handicraft works.
- It acts as natural filter of water and purifies it.
- Soil supports ecosystem and play an important role in land management.

Rocks and soils are the important renewable natural resources. Both of them play an important role in everyday life of human beings as well as economic development. Nowadays rock-based companies are in increase which provide employment to a sizeable population. Soils attract human settlement and other economic activities. As India is an agricultural country, the proper management of soil resource will lead to sustainable food production besides its use for various other purposes. So, the soil resources must be conserved.

Recap

- A rock is an aggregate of one or more minerals.
- The word ‘**Sedimentary**’ has been derived from Latin word ‘**Sedimentum**’ means settling down.
- Igneous rocks are the primary rocks formed first on the earth.
- Soil is a mixture of organic matter, minerals, gases, liquids and organisms that together support life.

GLOSSARY

Crust	Outermost layer of the earth	പുണിയിൽക്കേഡോറ
Lava	Hot molten rock erupted from a volcano.	സൈലോറ
Magma	Hot fluid or semi-fluid material found beneath the earth crust.	ഓരിമലൈക്കുമ്പ്
Metamorphic rock	A rock formed by the alteration of igneous and sedimentary rocks caused by the metamorphic rocks.	ഉന്നമാർബിയപ്പ പാരൈ
Rock cycle	The continuous process of transformations of rocks from one form to another.	പാരൈ ചൂഫ്രശി
Sedimentary rock	Rock is formed by the deposition of sediment.	പാടവുപ്പ് പാരൈ



Evaluation

I. Choose the correct answer.

1. Which of the following is known as sphere of rocks
 - a) Atmosphere
 - b) Biosphere
 - c) Lithosphere
 - d) Hydrosphere
2. World soil day is observed on
 - a) 15th August
 - b) 12th January
 - c) 15th October
 - d) 5th December
3. Fossils are found in
 - a) Sedimentary rocks
 - b) Igneous rocks
 - c) Metamorphic rocks
 - d) Plutonic rocks
4. The first layer of soil is called as
 - a) Regur
 - b) Regolith
 - c) Unweathered rock
 - d) partially weathered rock
5. Ideal soil for growing cotton is
 - a) Red soil
 - b) Black soil
 - c) Alluvial soil
 - d) Mountain soil
6. The major component of soil is
 - a) Rocks
 - b) Gas
 - c) Water
 - d) Minerals
7. Which one of the following is the most widespread most and productive category of soil
 - a) Alluvial soil
 - b) Black soil



- c) Red soil
- d) Mountain soil

II. Fill in the blanks.

1. Scientific study of rocks is called _____.
2. _____ soil is highly suitable for cotton cultivation.
3. The “skin of earth” is _____.
4. _____ is the kind of metamorphic rock using which Taj Mahal was built.
5. _____ is known as the primary rocks.

III. State whether the following statements are true or false.

1. Igneous rocks are called primary rocks.
2. Slate is formed from shale.
3. Red soil is formed by the process of leaching.
4. M-sand is used as alternative for natural sand in construction.
5. Volcanic mountains are covered with sedimentary rocks.

IV. Match the following.

1)

a.	Granite	1.	Bed rock
b.	Soil layer	2.	Plutonic rock
c.	Barren island	3.	Strip farming
d.	Soil conservation	4.	Active Volcano

	a	b	c	d
A	2	1	4	3
B	2	1	3	4
C	4	3	2	1
D	3	4	2	1

2)

a.	Basalt	1.	Anthracite
b.	Limestone	2.	Extrusive igneous
c.	Coal	3.	Metamorphic rock
d.	Gneiss	4.	Sedimentary rock



	a	b	c	d
A	2	4	1	3
B	2	4	1	3
C	3	1	2	4
D	3	1	4	2

V. Choose the incorrect statement from the following.

1. a) Igneous rocks are called the primary rocks.
b) Soil is the product of weathering of rocks.
c) Sedimentary rocks are the hardest ones.
d) Deccan plateau is the region of Igneous rocks.
2. a) Soil erosion decreases its fertility.
b) Dynamic metamorphism is caused by high temperature.
c) Soil is a renewable source.
d) Humus is a part of the top layer of soil.

VI. Consider the following statements and choose the right option from the given ones.

- I) **Statement (1):** Sedimentary rocks consist of many layers.
Statement (2): Sedimentary rocks are formed by the sediments deposited at different points of time.
- a) 1 and 2 are correct and 2 explains 1
 - b) 1 and 2 are correct but, 2 does not explain 1
 - c) 1 is correct but, 2 is incorrect
 - d) 2 is correct but, 1 is incorrect.

VII. Give reasons for the following.

1. Chemical sedimentary rocks are found in the beds of reservoirs.
2. Igneous rocks are found in the regions of volcanoes.

VIII. Distinguish the following.

1. Metamorphic rock and sedimentary rock.
2. Soil conservation and Soil erosion.

IX. Give short answers.

1. How are igneous rocks formed?
2. Describe about the composition of soil.
3. Define 'rock'.
4. State the types of soils.
5. What is soil conservation?

X. Give detailed answer for the following.

1. Explain the process of soil formation.
2. Classify and explain the rocks.
3. Give an account on different layers of soil.
4. Classify and explain the soil?

XI. Activity Corner.

1. Complete the following table with the help of internet source

Rocks	Mode of formation	Characteristics	Examples	Uses

2. **Map Work:** Mark the areas of black soil on the outline map of India.
3. **Exhibition:** Collect the soil samples of different types and display them with their names in the classroom .
4. **Group Discussion:** Natural sand is replaced by M-sand in construction.
 1. Status -
 2. Advantages -
 3. Disadvantages -



REFERENCE BOOKS

1. *Physical geography*-Dr.Shami swaroop.
2. *Outlines of General Geography* - By E.O. Robinson, M.A.
3. Text book in Geography for class VIII-Social science Resource and development - NCERT-New Delhi.
4. Geography for UPSC Civil Service Preliminary Examination - By Surender Singh.
5. School Atlas Book - Tamilnadu Text Book Corporation.



INTERNET RESOURCES

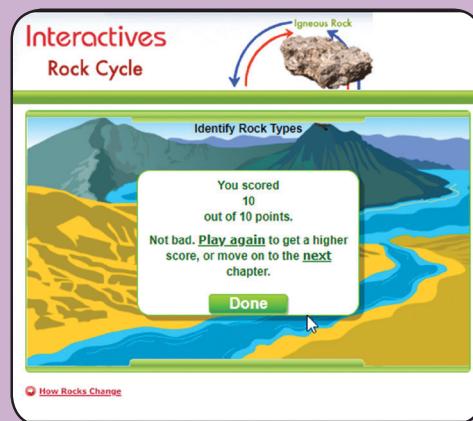
- www.Fert.nic.in
- www.greathimalayannationalpark.org
- www.csmrs.gov.in



ICT CORNER

ROCK AND SOIL

Through this activity you will know about types of rocks, how rocks change and the rock cycle.



Steps

- Open the Browser and type the URL given below (or) Scan the QR Code.
- Click the 'Begin' button, start your rock collection
- Click 'Add to rock collection' one by one
- Go to 'identify rock types' and play the game



B360_8_SOCIAL_EM

Website URL:

<http://www.learner.org/interactives/rockcycle/index.html>



Unit - 2

Weather And Climate



Learning Objectives

- ▶ To understand the importance of weather and climate
- ▶ To learn about the nature of the elements of weather and climate.
- ▶ To know the instruments used for measuring weather elements
- ▶ To be able to recognize the kind of weather and climate of a place



Introduction

Climate is one of the basic elements in the natural environment. It affects landforms, soil types, fauna and flora. It influences man to a large extent.

In a small village in Dharmapuri district, Tamil nadu, in the month of May, Yuktha enjoys her vacation with her brother and family. She always wears cotton cloths. Her mother makes food like porridge, buttermilk, lemonade, watermelon etc which suits to summer. At the same time (In May month) Tiya who lives in Auckland, New Zealand with her father and mother wear fleece jacket, jeans, gloves and socks. Her mother makes hot food like sandwich, salmon, oatmeal, soups etc. Yuktha celebrates Christmas with friends in winter, where as Tiya celebrates Christmas during summer. Can you think of why?

Yuktha and Tiya stay in two different hemispheres and have different way of life. This is because of the difference in weather condition of those places.

Weather and climate influence man's activities like what we eat, wear, the house

in which we live and work, farming, sailing, fishing, modern transport and even our play time etc. Hence one should have knowledge about the weather and climate. So, in this chapter we are going to learn about weather and climate, its elements and how they influence our lifestyle.

Weather

Weather is the day today conditions(state) of the atmosphere at any place as regards sunshine, temperature, cloud cover, Wind fog condition, air pressure, humidity, precipitation and such other elements. It refers to short periods like a day, a week, a month or a little longer and as such the weather changes from time to time in a day and one period to the other in an year. In the



Earth's atmosphere is a layer of gases surrounding the planet earth and retained by the earth's gravity. It contains about 78% nitrogen, 21% oxygen, 0.97% argon, 0.03% carbon dioxide and 0.04% trace amounts of other gases and water vapour.



Find out

Do all the planets in the solar system have atmosphere?

morning the weather might be sunny with a clear sky in a place and evening there might be clouds and rain. Similarly the weather is cool in winter and hot in summer.

We often hear people saying "Today the climate is good or bad". It is incorrect to say like that. Instead it has to be said that the weather is good or bad. We could observe the television news readers saying weather report and not the climate report for e.g. cricket match have been postponed due to bad weather etc.

Climate

Climate is generally defined as the average conditions (state) of the weather of a place or a region. The average atmospheric conditions are determined by measuring the weather elements for a long period of time which is usually for 35 years. The elements of weather and climate are the same. The climate does not change often like weather.

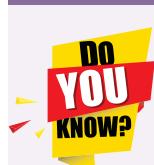


The word Climate is derived from the ancient Greek word "Klimo" which means "Inclination".

Controlling factors of weather and climate

Angle of the sun's rays, the length of daytime, altitude, distribution of land and water bodies, location and direction of mountain ranges, air pressure, winds and ocean currents are the major factors which affect the weather and climate of a region.

The earth is spherical in shape. So, the sun's rays fall unevenly on the earth's surface. The Polar regions receive slanting sun's rays. Hence there is little or no sunlight, thus there is an extreme cold winters. Vertical sun's ray's fall directly on regions around the equator,



Scientific study of weather is called **Meteorology** and the scientific study of climate is called **climatology**.

hence the climate is very hot and almost no winters. The difference in temperature makes the air and water move in currents. Warm air rises and creates more space for air beneath, while cool air settles down.

ACTIVITY

Discuss in the class room how altitude, distribution of land and water bodies, direction of mountain ranges, air pressure, winds and ocean currents affect weather/climate.

Elements of weather and climate

Temperature, rainfall, pressure, humidity and wind are the major elements of weather and climate.



a) Temperature



Thermo Meter

Temperature is one of the key elements of weather and climate. The earth and its atmosphere get heated from the sun through insolation. The degree of heat present in the air is termed as temperature. Apart from sun's rays, the heat in air also depends the atmospheric mass to a small extent.



Distribution of weather elements are shown by means of Isolines on maps. Isolines are those which join the places of equal values. Isolines are given different names based on the weather element they represent.

Isotherm	Equal temperature
Isocryme	Equal lowest mean temperature for a specified period
Isohel	Equal sunshine
Isollobar	Equal pressure tendency showing similar changes over a given time
Isobar	Equal atmospheric pressure
Isohyet	Equal amount of rainfall

Temperature varies with time due to changes in the level of radiation which reach the earth surface. This is due to motions of the earth (The rotation and revolution) and inclination of the earth's axis.

The temperature influences the level of humidity, the process of evaporation, condensation and precipitation.

Heat energy from solar radiation is received by the earth through three mechanisms. They are radiation, conduction and convection. The Earth's atmosphere is heated more by terrestrial radiation than insolation.

Temperature varies both horizontally and vertically. Temperature decreases with increasing height is known as Lapse rate which is 6.5 degree celsius per 1000 meters in troposphere .

b) Factors affecting the distribution of temperature

Latitude, altitude, nature of land, ocean currents, prevailing winds, slope, shelter and distance from the sea, natural vegetation and soil are the major factors which affect the distribution of temperature.

c) Measuring Temperature

The temperature of a unit volume of air at a given time is measured in scales like Celsius, Fahrenheit, and Kelvin. Meteorologist measures the temperature by the Thermometer, Stevenson screen and minimum and maximum Thermometer. The energy received by the earth through insolation is lost by outgoing radiation. Atmosphere is mainly heated by outgoing radiation from 2 to 4pm .So the maximum temperature is recorded between 2 and 4 pm regularly and minimum temperature is recorded around 4 am before sunrise.

Mean Temperature

The average of maximum and minimum temperatures within 24 hours is called **mean daily temperature** $((87^{\circ}\text{F}+73^{\circ}\text{F})/2=80^{\circ}\text{F})$. **Diurnal range of temperature** is the difference between the maximum and minimum temperatures of a day. **Annual range of temperature** is the difference between the highest and lowest mean monthly temperatures of a year. The distribution of temperature is shown by means of Isotherms. **Isotherms** are imaginary lines which connect the same temperatures of different places.

d) Heat zones of the earth

The fact that the earth is spherical in shape results in different parts of the earth



getting heated differently. Based on the heat received from the sun, Earth is divided into three heat zones. They are

Torrid Zone

It is a region between the tropic of cancer and the tropic of Capricorn. This region receives the direct rays of the sun and gets the maximum heat from the sun. This zone known as the torrid or the tropical zone

Temperate zone

This zone lies between the Tropic of cancer and the Arctic circle in the Northern Hemisphere and between the Tropic of Capricorn and the Antarctic circle in the southern Hemisphere. This zone gets the slanting rays of the sun and the angle of the sun's rays goes on decreasing towards the poles. Thus this zone experiences moderate temperature.

Frigid Zone

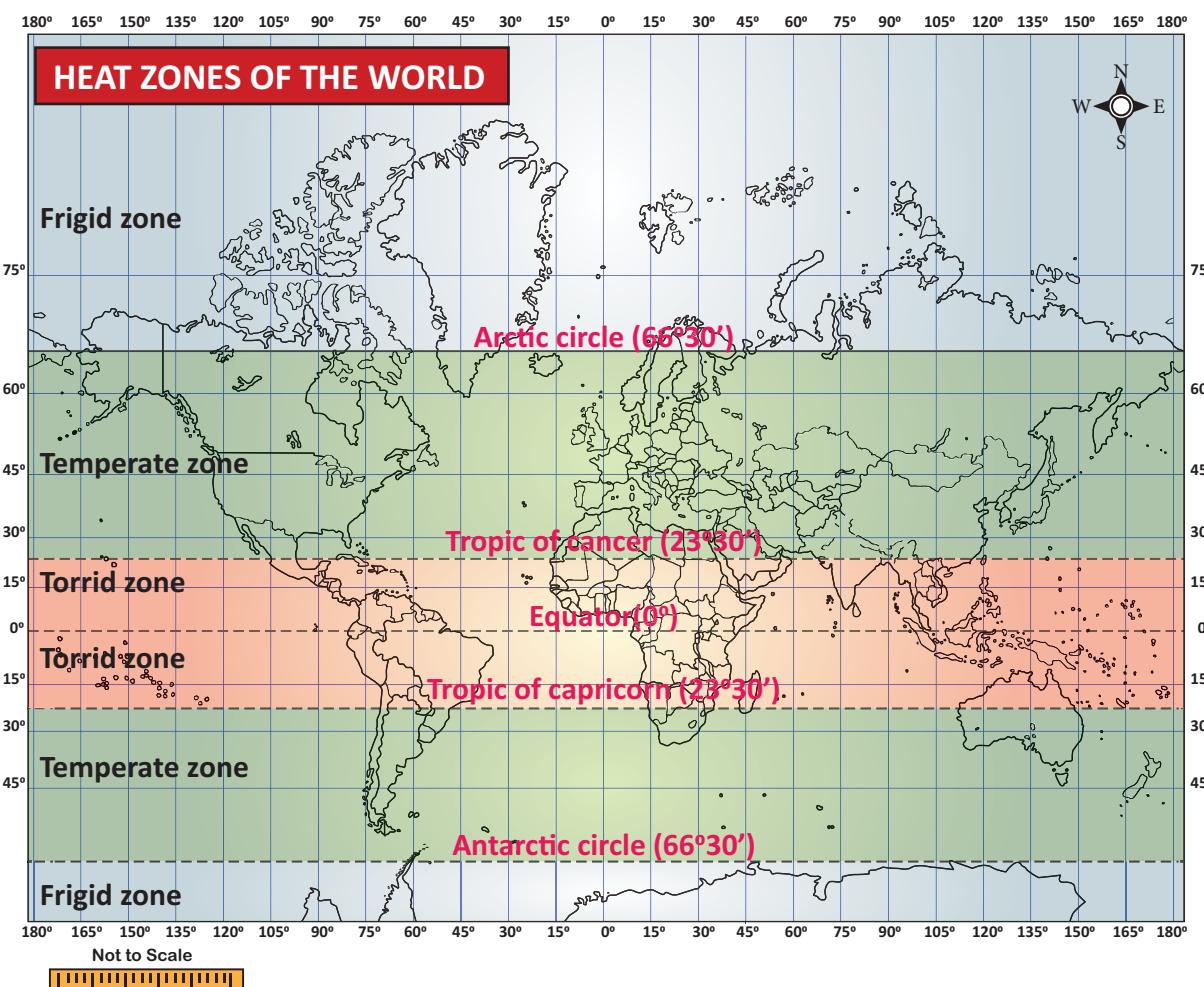
The frigid zone lies between the Arctic circle and the North Pole and between the Antarctic circle and the South Pole. This region also known as Polar region. Since it receives the extremely low temperature throughout the year, these regions are covered with snow.

Highest Temperature ever recorded

The highest temperature ever recorded on the earth is 56.7°C (134°F). It was recorded on 10th July 1913 at **Greenland Ranch of Death Valley**, California, USA.

Lowest Temperature ever recorded

The lowest temperature ever recorded on the earth is -89.2°C (-128.6°F ; 184.0 K). It was recorded on 21st July, 1983 at **Soviet Vostok Station** in Antarctica.





Rainfall

Rain is a liquid water in the form of droplets that have condensed from atmospheric water vapour and then become heavy enough to fall under gravity. Rain is a major component of the water cycle and is responsible for depositing most of the fresh water on the Earth. It is the source of water for all purposes. There is a close relationship between the temperature and rainfall distribution. Generally rainfall is high in the equatorial region and decreases gradually towards poles. Rainfall is measured by **Raingauge**.



Raingauge

Air Pressure



Aneroid Barometer

The weight of air above a given area on the earth's surface is called atmospheric pressure or air pressure. The air pressure is measured by Barometer. **The standard air pressure at sea level is 1013.25mb.** At the earth's surface the pressure is 1.03kg.per sq cm. The variation in standard atmospheric pressure is found both horizontally and vertically. Based on the level of pressure, it is categorised into low pressure and high pressure. Low pressure area is an area in the atmosphere where the pressure is lower than its surrounding areas. In this situation, the wind from the surroundings blow towards the centre of low pressure. High pressure is an area of atmosphere where the barometric pressure is higher than its surrounding areas. In this case, the wind from the centre of high pressure blows towards the surrounding low pressure areas. Low pressure system is marked as "L" on weather map, where as the high pressure system is marked as "H". Low pressure systems are also called as a **depression and cyclones**. High pressure system is called **anti cyclones**. **Low pressure leads** to cloudiness, wind, and precipitation. High pressure leads to fair and calm weather. **Isobar** is used to show the distribution of air pressure.

Highest pressure ever recorded.



The highest ever air pressure at sea level was recorded at Agata, Russia on 31st December, 1968. The pressure was 1083.8mb

Lowest pressure ever recorded

The lowest pressure of 870mb was recorded at Typhoon Tip, near Guam, Mariana Island in Pacific Ocean on 12th October, 1979.

Humans are not sensitive to small variation in air pressure. But the small variations in pressure that do exist largely determine the wind and storm patterns of the earth. The distribution of atmospheric pressure is controlled by altitude, atmospheric temperature, air circulation, earth rotation, water vapour, atmospheric storms etc.



Measuring air pressure

Meteorologist uses barometer/aneroid barometer to measure the air pressure. Barograms are used for recording continuous variation in atmospheric pressure.

Why Do Your Ears Pop in Airplanes?

As you go up in an airplane, the atmospheric pressure becomes lower than the pressure of the air inside your ears. Your ears pop because they are trying to equalize or match the pressure. The same thing happens when the plane is on the way down and your ears have to adjust to a higher atmospheric pressure.

Humidity

Humidity refers to the degree of water vapour present in the atmosphere in gaseous form in particular time and place. It ranges from 0-5 percent by volume in atmosphere. Climatically it is an important constituent of the atmosphere and its quantity depends on the level of temperature. So, the level of humidity decreases towards poles from equator. Humidity is expressed in different ways.



Specific humidity is a ratio of the water vapor content of the mixture to the total air content on a mass basis. It is expressed in grams of vapour per kilogram of air

Absolute Humidity is the mass or weight of water vapour present per unit volume of air. It is expressed usually in grams per cubic meter of air.

Relative humidity is a ratio between the actual amount of water vapour present in the air and the maximum amount of water vapour it can hold at a given temperature. It is expressed as a percentage.

Generally, warm air holds more water vapour than the cold air. When relative humidity reaches 100%, the air gets saturated. In this condition the temperature is said to be at dew-point. Further cooling will condense the water vapour into the clouds and rain. Relative humidity affects human health and comfortness. Very high and very low humidity are injurious to health. It also affects the stability of different objects, buildings and electrical applications.

Measurement of Humidity

Hygrometer is used to measure the humidity. (which comprises wet and dry bulb-plate side by side in the Stevenson screen)

Find out

The effect of low and high humidity over Human beings in particular.



With decreasing air pressure, the availability of oxygen to breath also decreases. At very high altitudes, atmospheric pressure and available oxygen get so low that people can become sick and even die. Mountain climbers use bottled oxygen when they ascend very high peaks. They also take time to get used to the altitude as the quick move from high pressure to low pressure can cause decompression sickness. Aircraft create artificial pressure in the cabin which makes the passengers remain comfortable while flying.



Wind

The horizontal movement of air is called wind. Vertical movement of air is said as air current. The winds move from high pressure to low pressure. Unlike other elements a wind is made up of a series of gusts and eddies which can only be felt and not seen. Winds get their name from the direction from which they blow i.e., wind blows from south west is called southwest wind.

The wind systems are broadly categorized into three as follows.

- Planetary winds
- Seasonal winds
- Local winds

Planetary Winds are the ones which blow almost in the same direction throughout the year. So, they are called as Permanent or planetary winds. Trade winds, Westerlies and polar easterlies are the types of prevailing winds. **Seasonal winds are those** which change their direction according to season in a year. They are called as monsoon winds. These winds blow from sea to land during summer and land to sea during winter. **Local winds** are the winds blow over a small area only during a particular time of a day or a short period of a year. Land and sea breezes are example of these winds.

The Beaufort scale is a scale for measuring wind speed. It is based on observation rather than accurate measurement. It is the most widely used system to measure wind speed today. The scale was developed in 1805 by Francis Beaufort, an officer of the Royal Navy and first officially used by HMS Beagle.



Al-Balakhi, an Arab Geographer collected climatic data from the Arab travellers and prepared the First climatic Atlas of the world

Measuring wind direction and speed

Meteorologist measures wind direction using **wind vane** or **weather cock**. Wind speed is measured by **anemometer**. Wind rose is a diagram used to depict the direction and periods (No. of days) of prevailing winds on map. **Meteorograph or triple register is an instrument** which records wind speed and direction, sunshine and precipitation. It also provides graphic representation.



Anemometer



DO
YOU
KNOW?

Brazil has a large area where the average wind speed is low. Gabon, Congo and DR Congo in Africa, Sumatra, Indonesia and Malaysia are the least windy places on earth.

Recap

- **Weather** is the day today condition of the atmosphere at any place. **Climate** is the average weather condition (state) of a place for a long period and is usually for 35 years.
- Temperature, precipitation, pressure, humidity and wind are the major elements of weather and climate.
- Temperature is the degree of heat present in the air.
- The weight of air above a given area on the earth's surface is called atmospheric pressure or air pressure.
- Horizontal movement of air is called wind.



GLOSSARY

Conduction	Transfer of heat energy from one place to another through the substances that are in direct contact with each other	வெப்பக்கடத்தல்
Condensation	The process in which the water vapour changes into liquid form.	ஆவிசருங்குதல்
Eddies	They are the wind circulation that develops when the wind blows over or adjacent to rough terrain, buildings, mountains or other obstructions.	சுழற்காற்று
Humidity	The amount of water vapour in the air	நரப்பதம்
Insolation	Incoming solar radiation	சூரியக்கதிர்வீசல்
Radiation	The transmission of heat energy from one body to the other body without any medium is called radiation	கதிர்வீச்சு



Evaluation



I. Choose the correct answer.

1. Earth's atmosphere contains about ---- percentage of nitrogen and oxygen.
a) 78% and 21% b) 22% and 1%
c) 21% and 0.97% d) 10% and 20%
2. ----- is generally defined as the average conditions of the weather of a place or a region.
a) earth b) atmosphere
c) climate d)s un
3. The earth receives energy from -----.
a) current b) electro magnetic radiation
c) waves d) heat
4. Which one the following represents places with equal amount of rainfall
a) isotherm b) isohel
c)isobar d) isohytes
5. ----- is used to measure the humidity.
a) anemometer b) barometer
c) hygrometer d) thermometer

II. Fill in the blanks.

1. _____ refers to the condition of atmosphere for a short period of time.
2. The scientific study of weather is called _____.
3. The highest temperature ever recorded on the earth is _____.
4. _____ is a ratio between the actual amount of water vapour and the maximum amount of water vapour the air can hold.
5. _____ and _____ are measured by anemometer and wind vane respectively.
6. _____ are imaginary lines which connect the same temperatures of different places.

III. Match the following.

1.	Climate	Locating and Tracking Storms
2.	Isonif	Cyclone
3.	Hygrometer	Equal Snowfall
4.	Radar	Long Term Changes
5.	Low Pressure	Humidity



IV. State whether the following statements are True or False.

1. The atmosphere is a layer of gases surrounding the planet.
2. The Scientific study of weather is called Climatology.
3. Isohel refers equal sunshine.
4. Humidity is calculated by Aneroid Barometer.

V. Answer in brief.

1. Define 'weather'.
2. What is insolation?
3. What is meant by atmospheric pressure?
4. Write a short note on "Planetary winds"
5. What are "Isolines"?

VI. Distinguish the following.

1. Weather and climate.
2. Absolute and relative humidity.
3. Permanent and seasonal winds.

VII. Give reasons.

1. The Weather and climate in different regions vary.
2. Temperature decreases with increase in altitude.
3. Mountain climbers carry oxygen cylinders while ascending peaks.

VIII. Answer in a paragraph.

1. How is temperature measured?
2. Write about the wind and its types.
3. List out the weather elements and associated measuring instruments.

IX. Give any three suggestions to reduce global warming.

1. _____.
2. _____.
3. _____.

X. Activities.

1. Make weather instruments like wind vane and rain gauge using web resources.
2. Make mini-meteorological station model in your school.
3. Observe and record the weather condition of your place in the following table.

Date			
Place and Time			
Temperature			
Barometric pressure			
Precipitation type and amount			
Wind direction			
Wind speed			
Source of information-			

REFERENCE BOOKS

1. *Climatology an atmospheric science* John E. Oliver, John J. Hidore, 2003, person education (singapore)pte,Ltd. India branch, Delhi.
2. Goh Cheng Lelong, *Certificate Physical and Human Geography*, Goh Cheng Lelong, oxford publication (india).
3. *Climatology*, Savindra Singh, 2005, Prayag pustak bhawan, Allahabad, India.

INTERNET LINKS

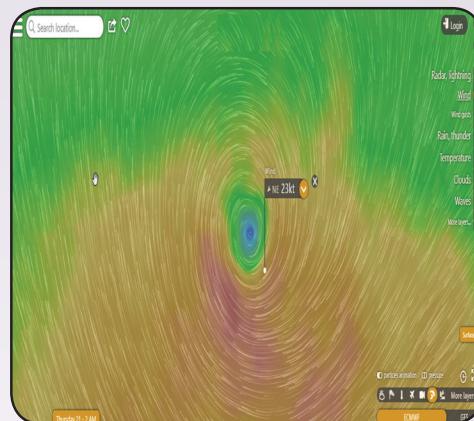
1. <https://www.nationalgeographic.com/>
2. <https://climatekids.nasa.gov/menu/atmosphere/>



ICT CORNER

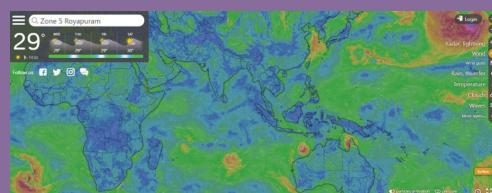
WEATHER AND CLIMATE

Through this activity you will know about wind direction, temperature, humidity and weather forecast visualization of the world



Procedure

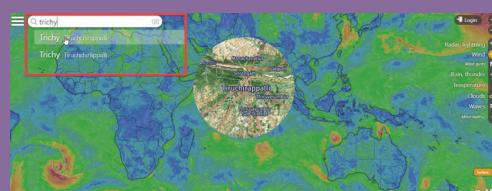
- Step - 1** Open the Browser and type the URL given below (or) Scan the QR Code.
- Step - 2** Enter your location in search box (Ex.Tiruchirappalli)
- Step - 3** Use the Drag flag and zoom in your area.
- Step - 4** Go to menu in right side and select from the list to know the weather of your area (Ex.Temperature)



Step1



Step3



Step2



Step4

URL:

<https://www.windy.com>

Mobile: <https://play.google.com/store/apps/details?id=com.windyty.android>

*Pictures are indicatives only.

*If browser requires, allow Flash Player or Java Script to load the page

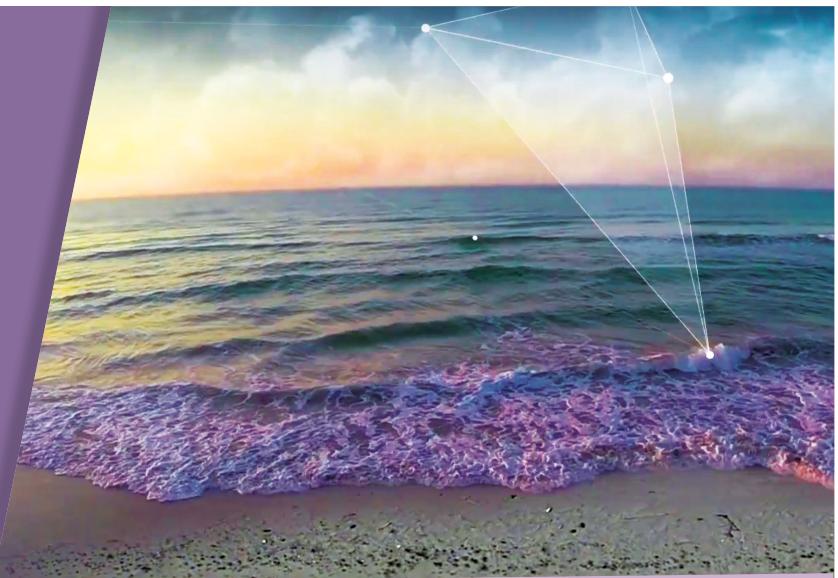


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Unit - 3

Hydrologic Cycle



Learning Objectives

- To understand the status of water on the earth.
- To learn the basic concepts of Hydrologic cycle.
- To study the different components of hydrologic cycle.



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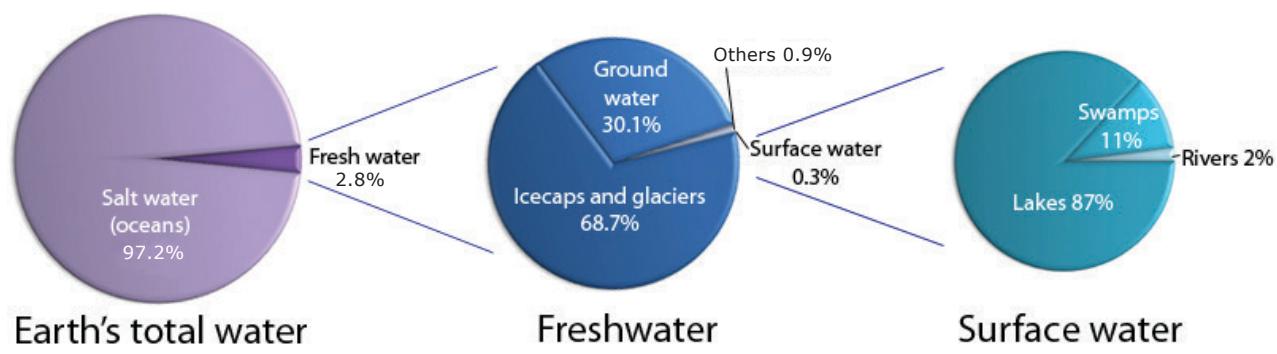
Introduction

Water is one of the most important elements on earth. All plants and animals need water for survival. Apart from drinking, water is required for domestic, agriculture, industrial purposes etc. Water is very essential for carrying out almost all economic activities. So, water is an indispensable element without which life form on the earth is not possible.

Water on the Earth

About 71% of the earth's surface is covered by water. The quantity of water

present on the earth is about 326 million cubic miles. It is hard to visualise this massive quantity of water. Most of the water on the earth is saline and is found in seas and oceans. The salt water constitutes about 97.2% and the fresh water is only about 2.8%. Out of this 2.8%, about 2.2% is available as surface water and the remaining 0.6% as groundwater. From this 2.2% of surface water, 2.15% is available in the form of glaciers and icecaps, 0.01% in lakes and streams and the remaining 0.04% is in other forms. Only about 0.25% of the total ground water of 0.6% can be





economically extracted with the present drilling technology.

Water resources are useful or potentially useful to humans. Water in India is available in three sources. They are **precipitation**, **surface water** and **groundwater**.

Table 1: Estimated Volume of Water on the Earth's Surface

Water Source	Volume of water (Cubic Miles)	Percentage to Total Water
Oceans, Seas, & Bays	321,000,000	96.54
Ice caps, Glaciers, & Permanent Snow	5,773,000	1.74
Groundwater	5,614,000	1.69
Soil Moisture	3,959	0.001
Ground Ice & Permafrost	71,970	0.022
Lakes	42,320	0.013
Atmosphere	3,095	0.001
Swamp Water	2,752	0.0008
Rivers	509	0.0002
Biological Water	269	0.0001

(Source: Shiklomanov, 1993)

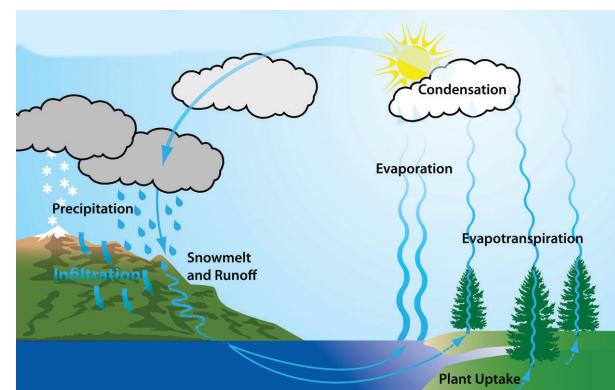
Hydrologic Cycle or Water Cycle

Hydrology is the science which deals with the various aspects of water such as its occurrence, distribution, movement and properties on the planet earth. Availability of water on the earth is not uniform. Some places are very rich in water resources while some other places are poor in water resources.

Hydrologic cycle is a global sun-driven process where water is transported from oceans to atmosphere, from atmosphere to land and from land back to oceans. The water cycle can be considered as a closed system for the earth, as the quantity of water involved in the cycle is invariable, though its distribution varies over space and time.

Evaporation takes place from the surface water and transpiration from the plants. Water vapour gets condensed at higher altitudes by condensation nuclei and form clouds (resulting in droplet growth). The clouds melt and sometimes burst resulting in precipitation of different forms. A part of water from precipitation flows over the land is called runoff and the other part infiltrates into the soil which builds up the groundwater.

Hydrologic cycle is a circulation of water. It is a continuous process and takes place naturally. The three important phases of the hydrologic cycle are: 1) **Evapotranspiration**, 2) **Precipitation** and 3) **Runoff**.



Hydrologic Cycle

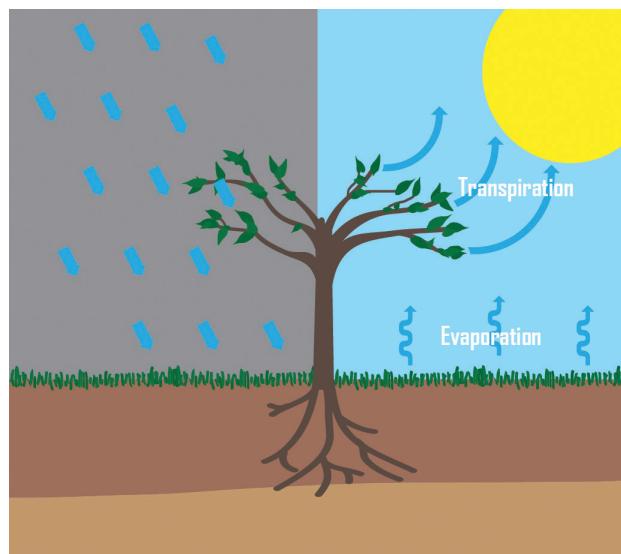
Components of Hydrologic Cycle

There are six main components in hydrologic cycle. They are: 1) Evapotranspiration, 2) Condensation, 3) Precipitation, 4) Infiltration, 5) Percolation, and 6) Runoff.

Evapotranspiration

It is defined as the total loss of water from the earth through evaporation from the surface water bodies and the transpiration from vegetation. In cropped area, it is difficult to determine the evaporation and transpiration separately. Therefore it is collectively called as evapotranspiration.





Evapotranspiration

Evaporation

Evaporation refers to the process in which the liquid form of water changes into gaseous form. Water boils at 100°C (212°F) temperature but, it actually begins to evaporate at 0°C (32°F); and the process takes place very slowly. Temperature is the prime element which affects the rate of evaporation. There is a positive relationship between these two variables. Areal extent of surface water, wind and the atmospheric humidity are the other variables which affect the rate of evaporation.

Many studies reveal that the oceans, seas, lakes and rivers provide nearly 90 % of the moisture in the atmosphere through evaporation and the remaining 10 % is contributed by plants through transpiration.

On a global scale, the amount of water gets evaporated is about the same as the amount of water delivered to earth as precipitation. This process varies geographically, as the evaporation is more prevalent over the oceans than precipitation, while over the land, precipitation routinely exceeds evaporation. The rate of evaporation is low during the periods of calm winds than during windy times. When the air is calm, evaporated water tends to stay close to the water body. During windy, the water vapour is driven away and is replaced by dry air which facilitates additional evaporation.

The rate of evaporation increases with

- Increase in wind speed
- Increase in temperature
- Decrease in humidity and
- Increase in areal extent of surface water bodies.

Transpiration

Transpiration refers to the process by which the water content in the plants are released into the atmosphere in the form of water vapour. Much of the water taken up by plants is released through transpiration. The rate of transpiration is also affected by the temperature, wind and humidity. The soil water content and the ability of the soil to conduct water to the roots, the nature of the plant parts including barks and leaves also determine the transpiration rate. In case of agriculture, the crop characteristics, its environment and cultivation practices also affect the transpiration process.

Condensation

It refers to the process in which the gaseous form of water changes into liquid form. Condensation generally occurs in the atmosphere when warm air rises, cools and loses its capacity to hold water vapour. As a result, excess water vapour condenses to form cloud droplets. Condensation is responsible for the formation of clouds. These clouds produce precipitation which is the primary route for water to return to the earth's surface in the water cycle. Condensation is the opposite of evaporation.

Forms of Condensation

Dew, Fog and Clouds are the three major forms of condensation

- a) **Dew:** It is a water droplet formed by the condensation of water vapour on a relatively cold surface of an object. It forms when the temperature of an object drops below the dew point temperature.



Frost: The ice crystals formed by deposition of water vapour on a relatively cold surface of an object is known as frost. It forms when the temperature of an object drops below the freezing point of temperature.

b) **Fog:** Fog is the suspended tiny water droplets or ice crystals in an air layer next to the earth's surface that reduces the visibility to 1,000 m or lower. For aviation purposes, the criterion for fog is 10 km or less.

Mist: Mist is the tiny droplets of water hanging in the air. These droplets form when the water vapour in the air is rapidly cooled, causing it to change from invisible gas to tiny visible water droplets. Mist is less dense than fog.

c) **Clouds:** Clouds consist of tiny water droplets/ice particles which are so small and light in weight. Clouds are formed by microscopic drops of water or by small ice crystals. The size of the droplets generally range from a couple of microns to 100 microns. This is the limit beyond which cloud drops become rain drops.



- Condensation occurs when the air get saturated.
- Warm air can hold more water vapour than the cool air.
- Saturation occurs when the temperature drops down.

Precipitation

Precipitation refers to all forms of water that fall from clouds and reaches the earth's surface. For the occurrence of precipitation, cloud droplets or ice crystals must grow heavy enough to fall through the air. When the droplets grow large in size, they tend to fall. While moving down, by collecting some small droplets, they become heavy enough to fall out of the cloud as raindrops.

Forms of Precipitation

The form of precipitation in a region depends on the kind of weather or the climate of the region. The precipitation in the warmer parts of the world is always in the form of rain or drizzle. In colder regions, precipitation may fall as snow or ice. Common types of precipitation include rain, sleet, freezing rain, hail and snow.

Rain: The most common kind of precipitation is rain. The precipitation in the form of water droplets is called rain. The precipitation in which the size of rain drops are <0.5 mm in diameter is known as drizzle and the rain drops with >0.5 mm in diameter is known as rain. Generally drizzle takes place from stratus clouds.

Sleet: The precipitation which takes place in the form of mixture of water droplets and tiny particles of ice(5mm in diameter) is known as sleet. Sometimes raindrops fall through a layer of air below 0°C , the freezing point of water. As they fall, the raindrops freeze into solid particles of ice. So, the mixture of water droplets and ice particles would fall on the earth surface.

Freezing Rain: At other times raindrops falling through cold air near the ground do not freeze in the air. Instead, the raindrops freeze when they touch a cold surface. This is called freezing rain and the drops of water are usually greater than 0.5 mm in diameter.

Hail: The precipitation which consists of round pellets of ice which are larger than 5 mm in diameter is called hail or hailstones. Hail forms only in cumulonimbus clouds during thunderstorms. A hailstone starts as an ice pellet inside a cold region of a cloud. Strong updrafts in the cloud carry the hailstone up and down through the cold region many times.

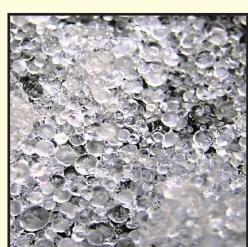
Snow: Often water vapour in a cloud is converted directly into snow pieces due to lowering of temperature. It appears like a



powdery mass of ice. The precipitation in the form of powdery mass of ice is known as snowfall. It is common in the polar and high mountainous regions.



RAIN



SEET



FREEZING RAIN



HAIL

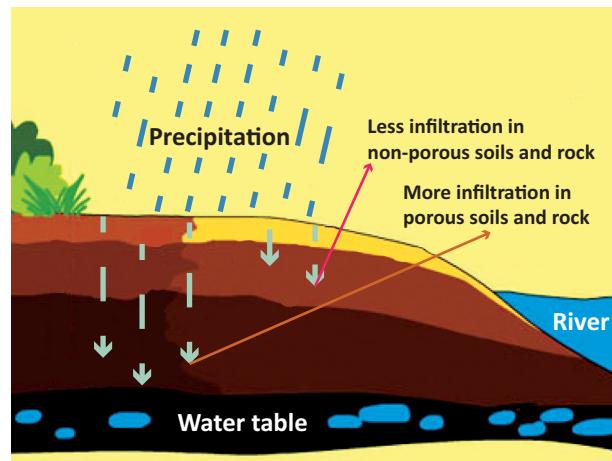


SNOW

Different forms of Precipitation

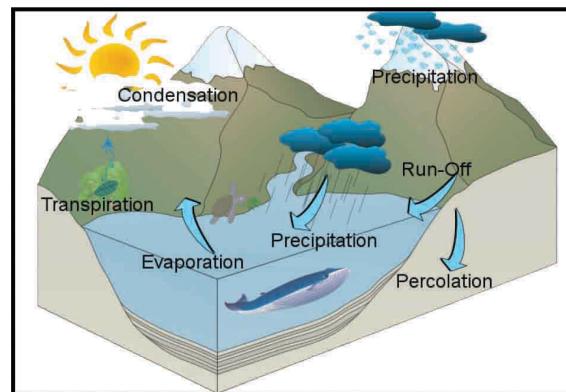
Infiltration

Water entering the soil at the surface of the ground is termed as infiltration. Infiltration allows the soil temporarily to store water, making it available for plants use and organisms in the soil. Infiltration is an important process where rain water soaks into the ground, through the soil and underlying rock layers. Some of this water ultimately returns to the surface through springs or low spots down hills. Some of the water remains underground and is called groundwater. The rate of infiltration is influenced by the physical characteristics of the soil, vegetative cover, moisture content of the soil, soil temperature and rainfall intensity. The terms infiltration and percolation are often used interchangeably.



Infiltration Process

Percolation



Percolation Process

Percolation is the downward movement of infiltrated water through soil and rock layers. Infiltration occurs near the surface of the soil and delivers water from the surface into the soil and plant root zones. Percolation moves the infiltrated water through the soil profile and rock layers which leads to the formation of ground water or become a part of sub-surface run-off process. Thus, the percolation process represents the flow of water from unsaturated zone to the saturated zone.

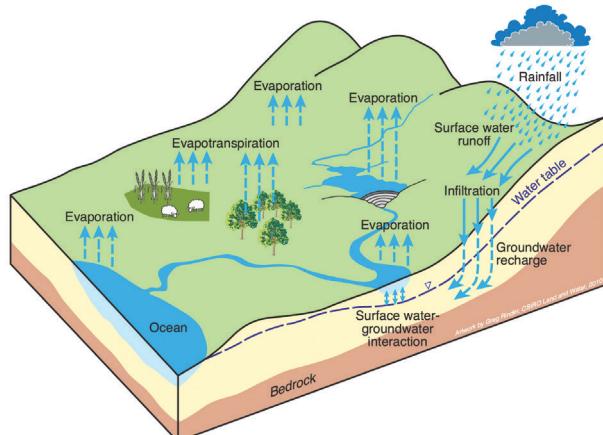
Runoff

Runoff is the water that is pulled by gravity across land's surface. It replenishes groundwater and surface water as it percolates into an aquifer (it is an underground layer of water-bearing rock) or moves into a river, stream or watershed. It comes from unabsorbed water from rain, snowmelt,



irrigation or other sources, comprising a significant element in the water cycle as well as the water supply when it drains into a watershed.

Runoff is also a major contributor to the erosion which carves out canyons, gorges and related landforms. The amount of runoff that can happen depends on the amount of rainfall, porosity of soil, vegetation and slope. Only about 35% of precipitation ends up in the sea or ocean and the other 65% is absorbed into the soil.



Runoff Process

Types of Runoff

Based on the time interval between the instance of rainfall and generation of runoff, the runoff may be classified into following three types

- Surface Runoff:** It is the portion of rainfall, which enters the stream immediately after the rainfall. It occurs, when the rainfall is longer, heavier and exceeds the rate of infiltration. In this condition the excess water makes a head over the ground surface, which tends to move from one place to another following land gradient and is known as overland flow. When the overland flow joins the streams, channels or oceans, it is termed as surface runoff or surface flow.
- Sub-Surface Runoff:** The water that has entered the subsoil and moves laterally without joining the water-table to the streams, rivers or oceans is known as sub-

surface runoff. The sub-surface runoff is usually referred as interflow.

- Base Flow:** It is a flow of underground water from a saturated ground water zone to a water channel. It usually appears at a downstream location where the channel elevation is lower than the groundwater table. Groundwater provides the stream flow during dry periods of small or no precipitation.

Units of the Measurement pertaining to Hydrology

- Evaporation /interception - inches (or) cm
- Infiltration - inches (or) cm / hour
- Precipitation - inches (or) mm (or) cm
- Run off - inches (or) mm (or) cm
- Run off rate - cubic feet per second
- Run off volume - acre feet (or) cubic feet
- Storage - cubic feet (or) acre feet

Recap

- Water is one of the most important elements on earth. All plants and animals need water for survival.
- About 71% of the earth's surface is covered by water. Out of this, only about 2.8% is fresh water and the remaining 97.2% is saltwater found in seas and oceans.
- Hydrological cycle is a global sun-driven process where water is transported from oceans to atmosphere, from atmosphere to land and from land back to oceans.
- There are six main components in hydrologic cycle. They are evapotranspiration, condensation, precipitation, infiltration, percolation, and runoff.
- The precipitation in the warmer parts of the world is in the form of rain or drizzle. The common types of precipitation include rain, sleet, freezing rain, hail, and snow.
- Infiltration occurs near the surface of the soil and delivers water from the surface into the soil and plant rooting zone. Percolation moves it through the soil profile and rock layers to form groundwater.



GLOSSARY

Aquifer	It is an underground layer of water - bearing permeable rocks, rock fractures or unconsolidated materials (gravel, sand or silt)	நீர்க்கொள்பாறை
Evapotranspiration	It refers to the water lost through evaporation from the water bodies and transpiration from vegetation	நீராவியாதல்
Infiltration	the seepage of water into soil or rock	நீர் ஊட்டுவல்
Percolation	the slow movement of water through the pores in soil	நீர்க்கசிவு
Precipitation	falling products of condensation in the atmosphere, as rain, snow, or hail	மழை
Runoff	overflow	ஓடும்நீர்



Evaluation



I. Choose the Correct Answer.

1. The process in which the water moves between the oceans, atmosphere and land is called
 - a) River Cycle
 - b) Hydrologic Cycle
 - c) Rock Cycle
 - d) Life Cycle
2. The percentage of fresh water on the earth is
 - a) 71
 - b) 97
 - c) 2.8
 - d) 0.6
3. The process of changing of water from gaseous to liquid form is known as
 - a) Condensation
 - b) Evaporation
 - c) Sublimation
 - d) Rainfall
4. Water that flows in the sub-soil or through the ground into the streams, rivers, lakes and oceans is termed as
 - a) Condensation
 - b) Evaporation
 - c) Transpiration
 - d) Runoff
5. The evaporation of water from the leaves of plants is called
 - a) Transpiration
 - b) Condensation
 - c) Water vapour
 - d) Precipitation

6. Water that is good enough to drink is called
 - a) Groundwater
 - b) Surface water
 - c) Potable water
 - d) Artesian water

II. Fill in the blanks.

1. The degree of water vapour present in the atmosphere is known as _____.
2. There are _____ phases in the water cycle.
3. The falling of water towards the earth surface from atmosphere in any form is known as _____.
4. The precipitation with the rain drop size of <0.5mm in diameter is known as _____.
5. Mist is denser than _____.

III. Match the following.

1.	Vegetation	Clouds
2.	Condensation	Sleet
3.	Snow and rain drops	At the surface
4.	Infiltration	Transpiration

IV. Choose the correct statement

1. Evaporation refers to
 - I. The process in which the gaseous form of water changes in to liquid form.



- II. It refers to the process in which the liquid form of water changes into gaseous form.
- III. Water boils at 100°C temperature but, it actually begins to evaporate at 0°C.
- IV. It is responsible for the formation of clouds.
- a) I, IV and V are correct
- b) II only correct
- c) II and III are correct
- d) All are correct

V. State whether the following statements are True or False.

- 1. Water boils at 212°F temperature but, it begins to evaporate at 32°F.
- 2. Mist is not the tiny droplets of water hanging in the air.
- 3. The sub-surface runoff is usually referred as interflow.

VI. Answer in brief.

- 1. Write a short note on aquifer.
- 2. Define "hydrological cycle".
- 3. How is the dew formation takes place?
- 4. Write a short note on surface run-off.

VII. Give reasons.

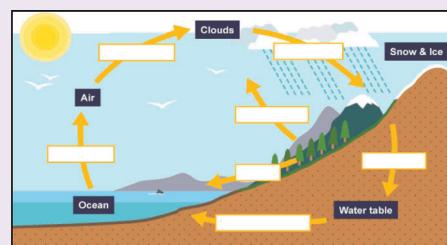
- 1. Infiltration of water is low in the region of non-porous soil.
- 2. Fresh water is less on the earth.
- 3. Snowfall is common in the polar region and mountainous regions.

VIII. Answer in a paragraph.

- 1. Explain the different stages involved in the hydrological cycle.
- 2. Distinguish between evaporation and transpiration.
- 3. Give a detailed explanation on different forms of precipitation.
- 4. Explain the run-off and its types.

ACTIVITY

Find out the missing components of hydrologic cycle in the given diagram and fill it up appropriately.



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2. Musy, A. and Higy, C. (2011). *Hydrology: A Science of Nature* Science Publishers, Enfield.
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INTERNET RESOURCES

1. <http://www.fao.org/docrep/X0490E/x0490e04.htm>.
2. <https://www.sciencelearn.org.nz> (University of Waikato).
3. <https://cals.arizona.edu/azmet/etowhat1.pdf>.
4. https://pmm.nasa.gov/education/sites/default/files/lesson_plan_files/evaporation_investigation_lesson_plan.pdf.
5. <https://www.watereducation.org/aquapedia-background/runoff>.



STANDARD EIGHT

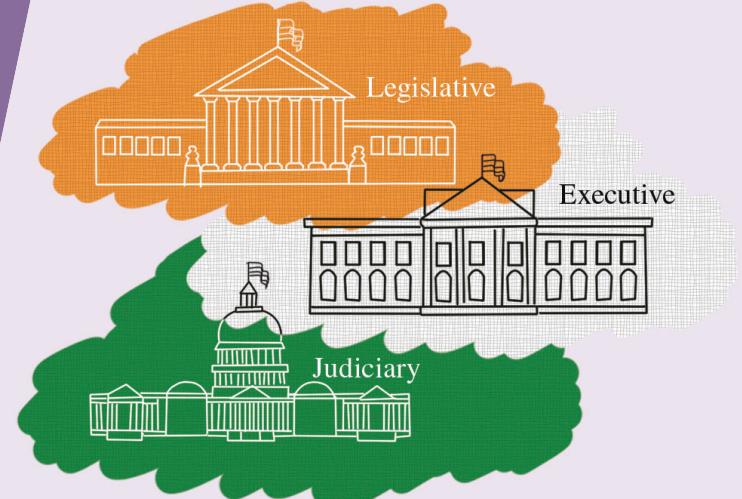
CIVICS

ECONOMICS



Unit - 1

How The State Government Works



Learning Objectives

Students acquire knowledge in

- ▶ The State executive.
- ▶ Powers and functions of the Governor.
- ▶ Powers and functions of the Chief Minister.
- ▶ Legislative Assembly and Council.
- ▶ State Judiciary.



Introduction

There are two sets of government in our country – the central government and the state government. There are 29 state governments in our country; every State has a government to run its own administration. The States have their own executive and legislature and Judiciary. The state executive consists of the Governor and the Council of Ministers headed by the Chief Minister. The Governor is an integral part of the State legislature.

The State Executive

The Governor

The Constitution provides for the post of the Governor as the Head of a State in India. He is appointed by the President of India. He is the constitutional Head of a State. The Governor is appointed for a term of five years. But before the



expiry of his full term, the President can dismiss him from office. The Governor may also resign on his own interest. His term of office may be extended and he may be transferred to another State. However, the State Government cannot remove the Governor from his post. To be the Governor, a person must be a citizen of India and should have completed 35 years of age. And he cannot be a member of the Parliament or the State legislature. He should not hold any office of profit.



While appointing the Governor, the President acts as per the advice of the Union Cabinet. The State Government is also consulted when the appointment is to be made. Generally, a person is not appointed Governor in his own State.

Powers and functions

- ▶ The Governor is the Chief Executive in a State. All the executive powers of the State are



vested upon him and decisions are taken in his name. He appoints the Chief Minister and Council of Ministers.

- He makes some important appointments of the State Government, such as, the Advocate general, Chairman and members of the State Public Service Commission and others.
- The President imposes emergency in a State under Article 356 on the basis of the report of the Governor. The Governor also acts as the Chancellor of State Universities.
- He summons and prorogues the sessions of the State legislature and he can dissolve the Legislative Assembly.
- Money bills can be introduced in the State Legislative Assembly only with the approval of the Governor. The Governor may promulgate ordinances when the Legislative Assembly or both the Houses of the legislature (when there are two Houses) are not in session.
- The Governor may nominate one member from the Anglo- India Community to the Legislative Assembly if there are Anglo-Indian people in a State and when they are not duly represented in the State legislature. He may also nominate 1/6 members of the Legislature Council from among persons who are experts in the fields of science, literature, arts, social service and co- operative movement.
- The annual budget of the State Government is laid before the legislature with the approval of the Governor. The Governor must give his assent to all the bills passed in the legislature including money bills. The Contingency fund of the State is also placed at the disposal of the Governor.

Position of the Governor

The position of the Governor of a State is compared to the President of India as a nominal executive. But the Governor is not always a nominal executive. He can exercise his powers in the real sense on some occasions. He acts as an agent of the Central Government

in a State. Therefore, he is responsible for maintaining relation between the Central Government and the State Government. The Governor may advise the Council of Ministers when faces difficult situations. The President declares emergency in a State on the basis of the report of the Governor regarding the law and order situation in the State. The Governor takes independent decisions while exercising discretionary powers. He may seek information from the Council of Ministers regarding various activities of the Government.

The Chief Minister

The Governor appoints the leader of the majority party in the State Legislative Assembly as the Chief Minister. He is the head of the State Council of Ministers. The Chief Minister has no fixed term of office. He remains in office so long as he gets support of the majority members of the Legislative Assembly. When he loses support in the legislature, he has to resign. The resignation of the Chief Minister means the resignation of the whole Council of Ministers in the State.

The Chief Minister must be a member of the State Legislature. If he is not a member of the State legislature at the time of his taking over charge, he must be so within a period of six months.

Powers and Functions

- The Chief Minister is the chief administrator of the State. All major decisions of the State Government are taken under his leadership.
- The Chief Minister plays an important role in the formation of the Council of Ministers. On the advice of the Chief Minister, the Governor appoints the other Ministers.
- The Chief Minister supervises the activities of different ministries and advises them accordingly. He also coordinates the activities of different ministries.





- The Chief Minister plays an important role in making policies of the State Government. He has to ensure that the policies of the government do not go against public interest. His voice is final in policy decisions of the State Government.
- He plays an important role in making higher appointments of the State Government. The Governor appoints different higher officials of the State Government on the advice of the Chief Minister and his Council of Ministers.

The Legislature

In India, the State Legislature consists of the Governor and one or two houses. The upper house is called the Legislative Council while the lower house is called the Legislative Assembly.

states with bicameral legislature



Legislative Council

The Constitution provides that the total strength of the Legislative Council must not be less than 40 and not more than 1/3 of the total strength of the Legislative Assembly of the State. The members of the Legislative Council are elected indirectly. One third of its members are elected by the local government bodies like the District Panchayat and Municipalities. Another one third is elected by the members of the Legislative Assembly. One twelfth is elected by the graduates of the constituency and another one twelfth by the teachers of secondary schools, colleges and universities. One sixth

At present, only seven states in India have Legislative Council in their legislature. They are Bihar, Uttar Pradesh, Maharashtra, Karnataka, Jammu & Kashmir, Andhra Pradesh and Telengana

of the members of the Legislative Council are nominated by the Governor of the State.

The Legislative Council is a permanent house. One-third of its members retire every two years and elections are held to fill the vacant seats. The members are elected for a term of six years. To be a member of the Legislative Council, one must be a citizen of India and should have completed 30 years of age. He cannot be a member of the Legislative Assembly or either of the houses of the Parliament. The Chairman is the presiding officer of the Legislative Council. In his absence, the Deputy Chairman presides over its meetings. They are elected from among the members of that house.

Legislative Assembly

The people who make the laws of a state government are called 'Members of the Legislative Assembly' (MLA). MLAs are chosen from different constituencies. For the election of MLAs the entire state is divided into different constituencies. These constituencies are called the legislative constituencies. One legislative constituency may have one lakh or even more people. One MLA is chosen from each legislative constituency to represent that legislative assembly.

Election to the Assembly

Different political parties compete in the elections to the legislative assembly. These parties nominate their candidates from each constituency. The candidate is that person who contests for the election and asks people to vote for him. A person has to be at least 25 years old to contest for election to the legislative assembly. One person can stand for election in more than one constituency at the same time. Even if a person does not belong to any political



party, he can contest election; such candidate is called an independent candidate. Every party has its own symbol. Independent candidates are also given election symbol. The members of legislative assembly (MLA) are elected directly by the people. All people residing in the area of a legislative constituency who are 18 years of age can cast a vote in the legislative assembly elections.

According to the Constitution, a Legislative Assembly cannot have more than 500 members and not less than 60 members. Some seats in the Legislative Assembly are reserved for Scheduled Castes and Scheduled Tribes. The Governor can nominate one member from the Anglo-Indian community. The members of the Legislative Assembly are elected for a term of five years. But the Governor can dissolve the house before the expiry of its term and can call for fresh elections. The meetings of the Assembly are presided over by the Speaker who is elected from among the members of the Assembly. In his absence, the Deputy Speaker conducts its meetings.

The States Council of Ministers

The leader of the majority party in the election is chosen as Chief Minister. In Tamil Nadu there are 234 legislative constituencies. The party with more than 118 elected candidates (MLA) are invited by the governor to form the Government. The Chief Minister (who also should be an MLA) chooses his ministers from the MLAs of his party. Ministers for various departments headed by the Chief Minister is called the State Government. So it is said that the party which got majority seats in the election forms the government.

The working of the State Government

After being elected to the legislative assembly the MLAs are expected to regularly participate in its sittings. The legislative assembly meets 2 or 3 times in a year. The main duty of the Legislative Assembly is to make laws for the state. It can make law on the subjects mentioned in the state list and the concurrent

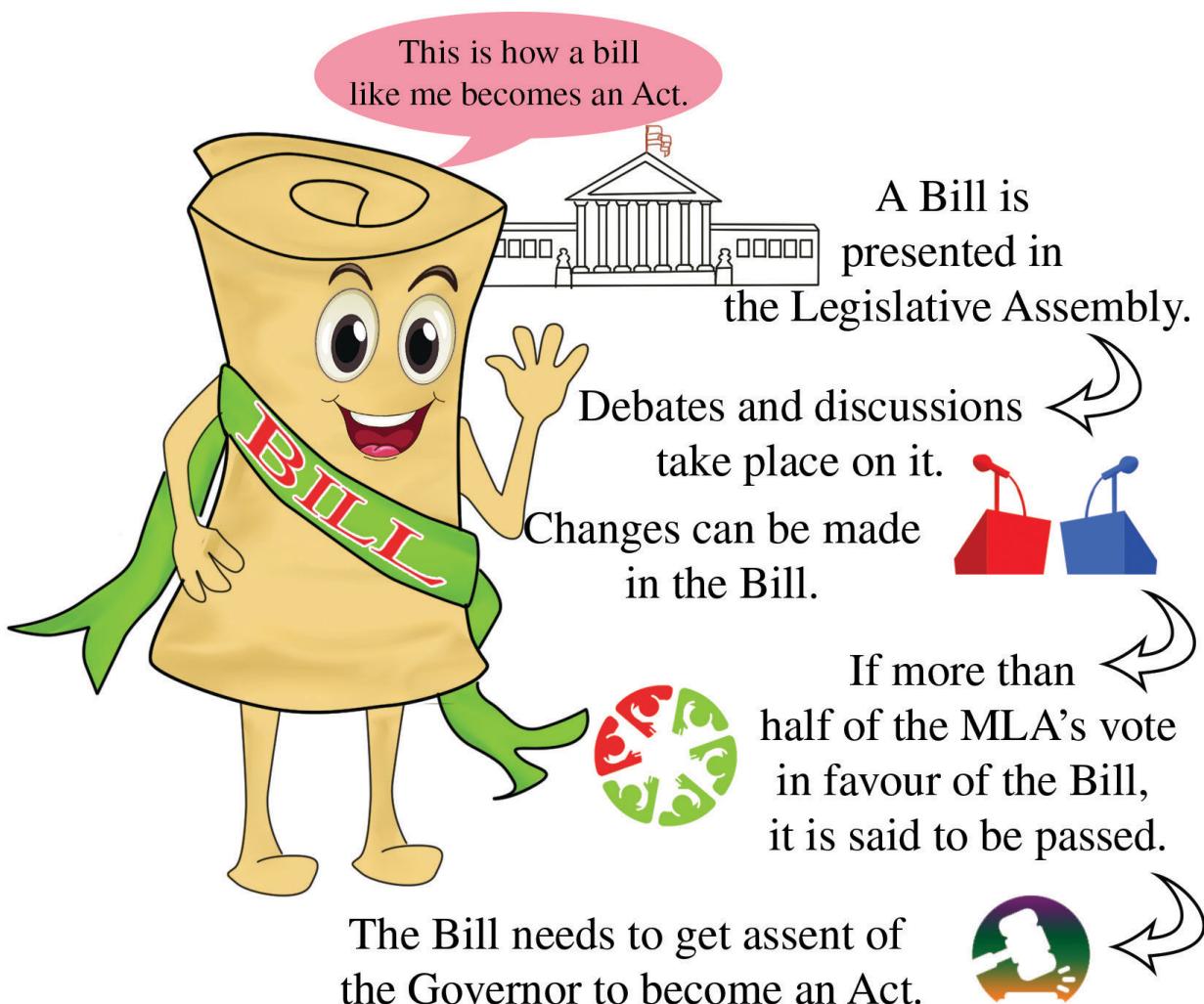
list. However, during state emergency, it cannot exercise its legislative power.

The assembly has control over the State council of Ministers. The State council of ministers are responsible or answerable to the Assembly for its activities. The Assembly may pass a no confidence motion against the council of Ministers and bring its downfall if it is not satisfied with the performance of the council of Ministers. The legislative Assembly has control over the finances of the state. A money bill can be introduced only in the Assembly. The government cannot impose, increase, lower or withdraw any tax without the approval of the Assembly. The elected members of the Legislative Assembly can take part in the election of the president of India and all members can take part in the election of the members of the Rajya Sabha from the state. The Assembly also takes part in the amendment of the Constitution on certain matters. So the government has three basic functions: making laws, executing laws and ensuring justice.

How laws are made in State Government?

Several kinds of rules and laws have been made for all people of our country. For instance, there is a law that you cannot keep a gun without having a licence for it. Or that woman cannot marry before the age of 18 years old and men cannot marry before the age of 21 years. These rules and laws have not been made just like that. People elected their government who thought carefully before making such laws. A lot of such laws are made by the state and central government.

In the legislative assembly meetings, MLAs discuss a number of topics like public works, education, law and order and various problems faced by the state. The MLAs can ask questions to know the activities of ministries, which the concern ministers have to answer. The legislative assembly makes laws on certain issues. The process of law making as follows:



DO YOU KNOW?

The State legislature follows the same procedure for passing an ordinary or a money bill like that of the Parliament. In State legislatures also, the Legislative Assembly which is the lower house is more powerful than the Legislative Council which is the upper house.

Executing Laws

It is the job of the state's council of ministers to execute the law. The legislative assembly of Tamilnadu is located at Chennai. The place where a state's legislative assembly is located and where its council of ministers function is called the capital of that state.

The state government has several lakhs of government employees to execute the laws

made by the legislative assembly- Collectors, Tahsildars, Block Development Officers, Revenue officers, Village Administrative Officers, Policemen, Teachers and Doctors, etc. All of them are paid salaries by the state government. They have to follow the orders of the state government.

Judiciary of State

High Courts

The High court stands at the apex of the State Judiciary. As per the constitution there shall be a High Court in each state. But there may be a common High Court for two or more states and Union Territories. The State High Court consists of a Chief Justice and such other Judges as the President may appoint from time to time if necessary. The number of judges in



the High Courts is not uniform and fixed. The President appoints the Chief Justice of High Court in consultation with the Chief Justice of India and the Governor of the state.

A Judge of High Court must have the following qualification:

- He must be a citizen of India
- He must have at least ten years' experience as head of the judicial office in the territory of India.
- He must have at least ten years' experience as an advocate in one or more High Courts.

A Judge of High Court holds the office until he completes the age of 62 years. A Judge of the High Court can be removed from office only for proven misbehaviour or incapacity and only in the same manner in which a Judge of the Supreme Court is removed.

Power and Functions of the High Court

- The High Court has been empowered to issue writs of Habeas corpus, Mandamus, Prohibition, Certiorari and Quo Warranto for the enforcement of the fundamental rights and for other purposes.
- Every High Court has a general power of superintendence over all the lower courts and tribunals within its jurisdiction except military courts and tribunals.
- If a case is pending before a sub – ordinary court and the High Court is satisfied that it involves a substantial question of the

constitutional law, it can take up the case and decide it itself.

- The High Court controls all the subordinate courts in the State.
- Like the Supreme Court, the High Court also acts as a Court of Record.

For the purpose of judicial administration, each state is divided into a number of districts, each under the jurisdiction of a district judge. The district court Judges were appointed by the Governor. In the exercise of the above mentioned powers, the High Court enjoys full powers and freedom to act within its jurisdiction. The constitutional safeguards have ensured its independent working.

Recap

- There are 29 state governments in our country. Every State has a government to run its own administration.
- The Constitution provides for the post of the Governor as the Head of a State in India.
- The Chief Minister plays an important role in making higher appointments of the State Government.
- The people who make the laws of a state government are called 'members of the Legislative Assembly' (MLA).
- The High court stands at the apex of the State Judiciary. As per the constitution there shall be a High Court in each state.

GLOSSARY

Constituency	the body of voters who elect a representative for their area	தொகுதி
Jurisdiction	power or authority to interpret and apply the law	அதிகார வரம்பு
Legislature	an organized body having the authority to make laws for a political unit	சட்டமன்றம்
Promulgate	announce widely known	பிரகடனம்
Prorogues	to suspend or end a legislative session	தள்ளிவை



Evaluation



I. Choose the correct answer.

1. The Governor of a state is appointed by
 - a) President
 - b) Vice President
 - c) Prime Minister
 - d) Chief Minister
2. The State Council Ministers is headed by
 - a) The Governor
 - b) Chief Minister
 - c) Speaker
 - d) Home Minister
3. Who can summon and prorogue the sessions of the State legislature?
 - a) Home Minister
 - b) President
 - c) Speaker
 - d) The Governor
4. Who does not participate in the appointment of the High Court Judge?
 - a) Governor
 - b) Chief Minister
 - c) Chief Justice of the High Court
 - d) President of India
5. The age of retirement of the Judges of the High Court is
 - a) 62
 - b) 64
 - c) 65
 - d) 58

II. Fill in the blanks.

1. _____ States are there in India at present.
2. The tenure of the Governor is normally _____ years.
3. The District Judges are appointed by _____.
4. The Governor is the _____ Head of the State.
5. Minimum age for elections as MLA _____ years.

III. Match the following.

1.	Governor	Lower House
2.	Chief Minister	Nominal Head
3.	Legislative Assembly	Upper House
4.	Legislative Council	Real Head

IV. State true or false.

1. Chief Minister is the chief administrator of the State.
2. The Governor nominates two members of the Anglo- Indian Community to Legislative Assembly.
3. The number of judges in the High Courts is not uniform and fixed.

V. Choose the correct statement.

1. The State Legislative Assembly participates in the election of
 - i) President
 - ii) Vice – President
 - iii) Rajya Sabha members
 - iv) Members of the Legislative Council of the State
- a) i, ii & iii are Correct
- b) i & iii are Correct
- c) i, iii & iv are correct
- d) i, ii , iii & iv are correct

VI. Answer the following in one or two sentences.

1. Name the two houses of the State legislature?
2. Write the qualifications of the members of the Legislative Assembly?
3. How is the Chief Minister appointed?
4. How is the Council of Ministers formed?

VII. Answer the following in detail.

1. Discuss the powers and functions of the Chief Minister.
2. Discuss the powers and functions of the Legislative Assembly.?



3. Write about the powers and functions of the High Court?

VIII. Project and Activity.

List out the name of the Tamil Nadu Governor and Chief Minister, Ministers and Governors and Chief Ministers of the neighbouring states.



REFERENCE BOOKS

- The Constitution of India, Government of India, Ministry of Law and Justice, 2011

- Om Prakash Aggarawala, S.K. Aiyar The Constitution of India, Metropolitan Book Company Ltd., Delhi 1950



INTERNET RESOURCES

- www.tnrajbhavan.gov.in/
- www.tn.gov.in/
- indiancourts.nic.in/



ICT CORNER

HOW THE STATE GOVERNMENT WORKS

Through this activity students will explore the Indian Parliament Virtually



VIRTUAL TOUR



Steps

- Enter the following URL or scan the QR code to land in Lok Sabha official website. Select “Members” tab to explore the sitting members of the parliament.
- Scroll the middle section of the page to know the cabinet members of different departments that governs India.
- Hover the mouse over the “pie chart” to know the strength of the different parties that constitutes the central government.
- Click “Virtual tour” from the lower section of the page and view the structure of the parliament.



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Website URL:

<https://indiancitizenshiponline.nic.in/Home.aspx>



Unit - 2

Citizens and Citizenship



Learning Objectives

Students acquire knowledge in

- ▶ Meaning, definition of citizens and citizenship
- ▶ The Constitutional Provisions of India
- ▶ Acquisition and termination of Indian citizenship
- ▶ Nature of overseas citizenship of India
- ▶ Rights and responsibility of a citizen



Introduction

Civics is the study of government. The word 'Citizen' is derived from the Latin word 'Civis' which means resident of a City State of Ancient Rome. After the disappearance of City-State system, it has been used to mean a member of the State. The citizens of a state enjoy full civil and political rights.

Citizen and Citizenship

Citizen is a person of a country who is entitled to enjoy all the legal rights and privileges granted by a state and is obligated to obey its laws and to fulfill his duties.

Citizenship is the status given to the citizens which provide them the right to legally live in a country as long as they want.

Types of Citizen

There are two types of citizens, Natural and Naturalised citizens.

1. Natural citizens: are the citizens by birth.
2. Naturalised citizens: are the one who acquires citizenship.

Indian Citizenship Act, 1955



This act is to provide for the acquisition and termination of Indian citizenship.

Acquisition of citizenship

The citizenship Act of 1955 prescribes five ways of acquiring citizenship. They are by birth, descent, registration, naturalisation and incorporation of territory.

1) By Birth

- a. A person born in India on or after 26th January 1950 but before 1st July 1987 is a citizen of India by birth irrespective of the nationality of his Parents.
- b. A person born in India on or after 1st July 1987 is considered as a citizen of India only if either of his Parents is a citizen of India at the time of his birth.





- c. Those born in India on or after 3rd December 2004 are considered citizens of India or one of whose parents is a citizen of India and the other is not an illegal migrant at the time of their birth.

- d. he is a good character and has an adequate knowledge of a language specified in the Eighth Schedule to the Constitution. (presently 22 languages)

2) By Descent

- a. A Person born outside India on or after 26th January 1950 but before 10th December 1992 is a citizen of India by descent, if his father was a citizen of India at the time of his birth.
- b. A person born outside India on or after 10th December 1992 is considered as a citizen of India if either of his parents is a citizen of India at the time of his birth.
- c. From 3rd December 2004 onwards, a person born outside India shall not be a citizen of India by descent, unless his birth is registered at an Indian consulate within one year of the date of birth.

3) By Registration

- a. A Person of Indian origin who is ordinarily resident in any country or place outside undivided India.
- b. A Person of Indian origin who is ordinarily resident in India for seven years before making an application for registration.
- c. A Person who is married to a citizen of India and is ordinarily resident in India for seven years before making an application for registration

4) By Naturalisation

The Central Government may, on an application, grant a certificate of naturalization to any person

- a. if he is not a citizen of any country where citizens of India are Prevented from becoming subjects or citizens of that country
- b. a citizen of any country, renounce the citizenship of that country
- c. he has either resided in India or been in the service of a Government in India or throughout the period of twelve months

5) By incorporation of Territory

- a. If any foreign territory becomes a part of India, the Government of India specifies the persons who among the people of the territory shall be the citizens of India. Such persons become the citizens of India from the notified date. For example, when Pondicherry became a part of India, the Government of India issued the citizenship (Pondicherry) order, 1962.

Loss of Indian Citizenship

Part II of the Constitution of India (Article 5-11) prescribes three ways of losing citizenship.

Renunciation: (is a voluntary act) when a person after acquiring the citizenship of another country gives up his/her Indian citizenship.

Termination: (takes place by operation of law) When an Indian citizen voluntarily acquires the citizenship of another country; he/she automatically ceases to be an Indian citizen.

Deprivation: (is a compulsory termination) The citizenship is deprived on the basis of an order of the Government of India in cases involving acquisition of Indian citizenship by fraud, false representation or being disloyal to the Constitution.



Nationality and citizenship

Nationality is the status of belonging to a particular nation by origin, birth basically, it's an ethnic and racial concept.

Nationality of a person cannot be changed.

Citizenship is granted to an individual by the government of the country when he/she complies with the legal formalities. Citizenship can be changed.



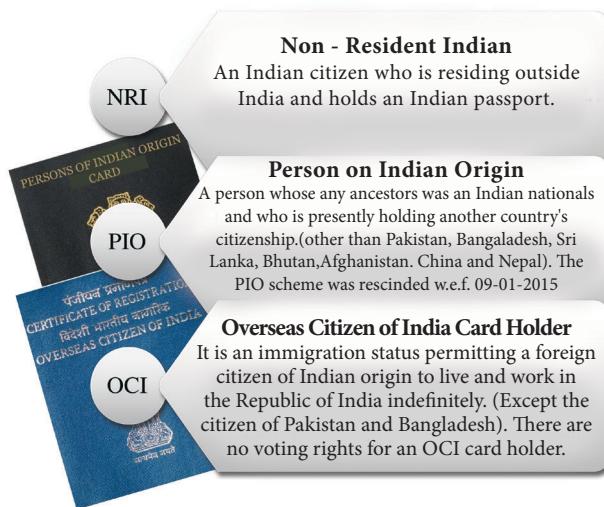
Single citizenship

Our Indian Constitution provides for only Single citizenship, that is, the Indian citizenship. But federal states like USA and Switzerland has dual citizenship. (National citizenship and the State citizenship). In India, all citizens irrespective of the state in which they are born or reside enjoy the same political and civil rights of citizenship all over the country.



As per the order precedence President is the first citizen of our country.

Overseas Citizenship of India



Rights and Duties of Citizen

Our Constitution confers the following rights for the citizen of India.

- Fundamental Rights
- Right to vote in the election to the Lok Sabha and the State Legislature
- Right to hold certain public offices
- Right to become the Member of Parliament and State Legislature.

According to 42 Amendment of our Constitution, a set of Fundamental Duties are prescribed for all citizens of India. (For e.g. paying taxes honestly, respecting the rights,

beliefs and opinions of others, defending the country, respect and obey state and local laws and so on)

Alien and immigrant are two terms that are used to refer to non-nationals of a country.

Alien refers to all non-citizens or non-nationals residing in a country. e.g. tourists, foreign students

Immigrant refers to alien who has been granted the right to reside and work permanently without restriction in a particular country.

Qualities of a good citizen

- Loyalty to the Constitution.
- Obeys laws.
- Contributes to society and community and performs civic duty.
- Quality of goodness and justice.
- Respecting diversity.

Global Citizenship

Global citizenship is an idea that everyone, no matter where they live is part of a worldwide community rather than as the citizen of particular nation or place. All people have rights and civic responsibilities. It is fundamental in enabling young people to access and participate in shaping modern society.





Overseas Indians' Day

DO YOU KNOW?

Pravasi Bharatiya Divas (PBD) Sponsored by Ministry of External Affairs of Government of India is celebrated once in every two years, to "mark the contributions of Overseas Indian Community in the development of India". The day commemorates the arrival of Mahatma Gandhi in India from South Africa.

Conclusion

Our Constitution of India has introduced Single citizenship and provides uniform rights

for the people of India to promote the feeling of fraternity and unity among them to build an integrated Indian nation.

Recap

- Citizen is a person of a country who is entitled to enjoy all the legal rights and privileges granted by a State.
- Part II of the constitution of India, Articles 5 – 11 deals with the Citizenship of India.
- Indian Citizenship Act of 1955 provides for the acquisition and termination of Indian citizenship.
- Our Indian Constitution provides for Single Citizenship.

Glossary

acquisition	act of acquiring	முயன்று அடைதல்
amendment	a minor change	திருத்தம்
Constitution	Law determining the fundamental political principles of a government	அரசியலமைப்பு
fraternity	brotherhood	சகோதரத்துவம்
Resident	inhabitant	குடியிருப்பவர்



Evaluation



I. Choose the correct answer.

1. Which of the following is not a condition for becoming the citizen of India?
 - a. Birth
 - b. acquiring property
 - c. descent
 - d. naturalization
2. _____ of the Constitution of India deals with the Citizenship.
 - a. Part II
 - b. Part II Article 5-11
 - c. Part II Article 5-6
 - d. Part I Article 5-11
3. Who is called the first citizen of India?

- a. The Prime Minister
- b. The President
- c. The Chief Minister
- d. The Chief Justice of India

II. Fill in the blanks.

1. _____ of a state enjoy full civil and political rights.
2. Our Indian Constitution provides for only _____ citizenship.
3. An Indian citizen who is residing outside India and holds an Indian passport are called _____.
4. All have right and _____ responsibility citizens.
5. _____ is an idea enabling young people to access and participate in shaping modern society.

III. State true or false.



1. USA has single citizenship.
2. OCI card holder has voting rights in India.
3. Citizen of India can enjoy Fundamental Rights guaranteed by our constitution.
4. Nationality can be change and citizenship can not be changed.

IV. Consider the following statements.

Tic (✓) the appropriate answer.

1. Indian Citizen of a person can be terminated if
 - a. a person voluntarily acquires the citizenship of some other country.
 - b. a person who has become a citizen through registration.
 - c. the Government of India is satisfied that citizenship was obtained by fraud.
 - d. a citizen who is by birth indulges in trade with an enemy country during war.
 - a. I and II are correct.
 - b. I and III are correct
 - c. I, III, IV are correct.
 - d. I, II, III are correct.
2. **Assertion:** When Pondicherry becomes the part of India in 1962, the people lived there became Indian citizens.
Reason. It was done by one of the provisions of the Act of 1955 - by incorporation of Territory.
 - a. R is the correct explanation of A
 - b. R is not the correct explanation of A
 - c. A is wrong but R is correct.

- d. Both A and R are wrong.

V. Answer the following in one or two sentences.

1. Name the types of citizens?
2. What are the Rights that a citizen can enjoy in our country?
3. Mention any three qualities of a good citizen.
4. Name the five ways of acquiring citizenship?
5. What do you know about the citizenship Act of 1955?

VI. Answer the following:

1. On what grounds that the citizenship of a person is cancelled?

VII. Student Activity.

- a. Tabulate: How will you be a good citizen inside the classroom and outside the classroom.
- b. My responsibility as a Good Citizen (write any three points)

At Home	At School
To myself	To the Environment



ICT CORNER

Steps

CITIZENS AND CITIZENSHIP

- Enter the following URL or scan the QR code to land in Ministry of Home Affairs official website.
- Select “Act/Rules/Regulations” tab to explore constitutional procedures to become an Indian citizen.
- Select “Required Documents” tab from bottom section to know about important documents.
- Click “Sample Forms” and explore the format to apply for citizenship.

Website URL:

<https://indiancitizenshiponline.nic.in/Home.aspx>



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Unit - 1

Money, Savings And Investments



"Learning gives creativity, creativity leads to thinking, thinking provides knowledge, knowledge makes you great".

-A.P.J. Abdul Kalam

Learning Objectives

- To know about the Evolution of Money.
- To know about the value, nature, function, and importance of money.
- To understand about Savings and Investments.
- To know about the black money.



Introduction

Money is a fascinating subject and full of curiosities. It is important to capture this element for the students. The history of money and how various forms were used at different times is an interesting story. Modern forms of money are linked to the banking system.

Money is a fundamental discovery, which has eased the day to day transactions, valuing goods and services and has allowed us to store the wealth and trade in future. "Money is anything which is widely accepted in payment for goods or in discharge of other business obligations" Robertson. Money in some form, has been part of human history for atleast the last 3000 years Before that time, it is assumed that a system of bartering was likely used.

Evolution of Money

The word Money is derived from Roman word "Moneta Juno". It is the roman goddesses and the republic money of roman empire. The Indian rupee is derived from Sanskrit word 'Rupya' which means silver coin. Today we use paper notes, coins as money. But the evolution of this stage has not happened overnight. It took thousands of years to reach such a stage. There are many stages of evolution of money. The earliest and primitive stage is Barter system.

Barter system

Barter system is exchanging goods for goods without the use of money in the primitive stage. A barter system is an old method of exchange. This system has been used for centuries and long before money was invented. People exchanged services and



goods for other services and goods in return. The value of bartering items can be negotiated with the other party. Bartering doesn't involve money which is one of the advantages.

Hence Barter system had many deficiencies like,

1. Lack of double coincidence of wants,
2. Common measure of value
3. Indivisibility of commodities
4. Difficulties of storing wealth

Some of the major stages through which money has evolved are as follows

Commodity Money, Metallic Money, Paper Money, Credit Money, Near Money and recent forms of Money. Money has evolved through different stages according to the time, place and circumstances.

Commodity Money

In the earliest period of human civilization, any commodity that was generally demanded and chosen by common consent was used as money. Goods like furs, skins, salt, rice, wheat, utensils, weapons etc. were commonly used as money. Such exchange of goods for goods was known as 'Barter Exchange'.

Metallic Money

With progress of human civilization, commodity money changed into metallic money. Metals like gold, silver, copper, etc. were used as they could be easily handled and their quantity can be easily ascertained. It was the main form of money throughout the major portion of recorded history.

During the ancient time.....

BARTER SYSTEM:

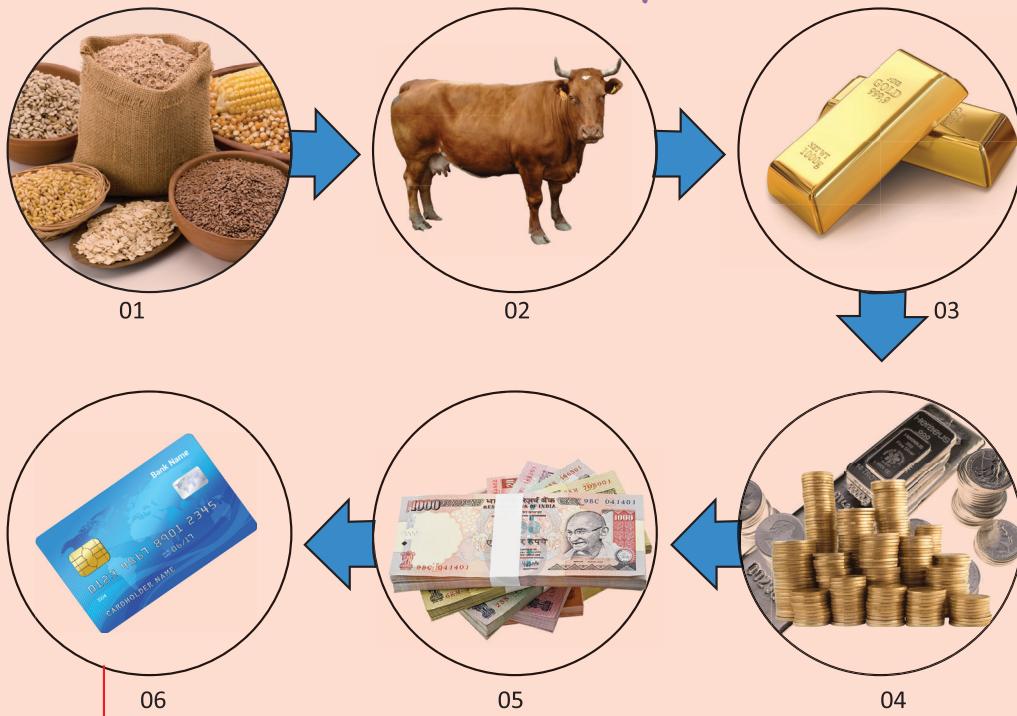
Goods and Services are traded in exchange for other good.



Barter system



Evolution of Money



RECENT FORMS OF MONEY TRANSACTION



Evolution of Money



History of Metallic Money

The precious metals especially gold, silver, bronze were used for metallic money. The standard weight and fineness of metal particularly gold and silver with a seal on it became medium of exchange. They were of different denomination easily divisible, portable and were convenient in making payment.

King Midas of Lydia innovated metal coin in the 8th century BC (BCE) by the ancient historian Herodotus. But gold coins were in use in India many centuries than in Lydia.

The earliest issuers of coins in the world are the ancient Indians along with Chinese and Lydians from the middle east. The first time Indian coins were minted in the 6th century BC (BCE) by the Mahajanapadas known as Puranas, Karshapanas or Panas.

The Mauryas came up with the Punch Marked Coins minting of silver, gold copper or lead and Indo-Greek Kushan kings introduced the Greek custom of engraving portraits on the coins. Turkish sultans of Delhi has replaced the royal designs of Indian kings with Islamic Calligraphy by the 12th century AD (CE). The currency was made up of gold, silver and copper known as Tanka and lower valued coin known as Jittals.

The Mughal Empire from 1526 AD consolidate the monetary system for the entire empire. In this era evolution of rupee occurred with Sher Shah Suri defeated Humayun and issued a silver coin of 178 gms known as rupiya and was divided into 40 copper pieces or paisa and during the whole Mughal period silver coin remained in use. During the British East India company i.e. 1600, the mughal currency remained popular but in 1717 AD, Farrukhsiyar the Mughal Emperor gave permission to the British to coin Mughal Money at the Bombay mint. The British gold coins were termed as Carolina, the silver coins as Angelina, the copper coins as cupperoon and the tin coins as tinny.

METALIC MONEY



Maurya



Maurya



Karshapanas



Delhi Sultan



Delhi Sultan



Tanka - Shershah Suri



Shersha Suri Coin



Maurya

Metallic Money



Paper Money



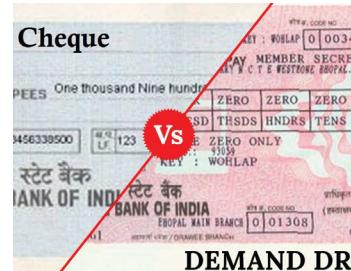
It was found inconvenient as well as dangerous to carry gold and silver coins from place to place. So, invention of paper money marked a very important stage in the development of money. The development of paper money started on the basis of storage of gold and the receipts were issued by the goldsmiths for these storages. This receipts of goldsmiths were a substitute for money and became paper money. Paper money is regulated and controlled by Central bank of the country (Reserve Bank of India). At present, a very large part of money consists mainly of currency notes or paper money issued by the central bank.



Reserve Bank of India

Credit Money or Bank Money

Emergence of credit money took place almost side by side with that of paper money. People keep a part of their cash as deposits with banks, which they can withdraw at their convenience through cheques. The cheque (known as credit money or bank money), itself, is not money, but it performs the same as functions of money.



ACTIVITY: 1

Fill up the following Table:

Sl.No.	Name in the Country	Name in Currency
1	India	
2	Germany	
3	Japan	
4	Singapore	
5	Malaysia	
6	Saudi Arabia	
7	USA	
8	UK	
9	Sri Lanka	
10	Pakistan	

Near Money

The final stage in the evolution of money has been the use of bills of exchange, treasury bills, bonds, debentures, savings certificate etc.

Recent forms of Money

Plastic Money

The latest type of money is plastic money in the form of Credit cards and Debit cards. They aim for cashless transactions.





E-Money

Electronic Money is money which exists in banking computer systems and is available for transactions through electronic system.

Online Banking (Net Banking)

Online Banking, also known as internet banking is an electronic payment system that enables customers of a bank or other financial institutions to conduct a range of financial transactions through website.



E-Banking

Electronic banking, also known as National Electronic Funds Transfer (NEFT), is simply the use of electronic means to transfer funds directly from one account to another rather than by cheque or cash.



ACTIVITY: 2

- Prepare the duplicate model of different stages of Money, like Commodity money, Metal money, Plastic Money, etc.(including Barter System)
- Give the models to the each group students.
- Teacher and students discuss about the different stages of money

Value of Money

Value of money is meant the purchasing power of money over goods and services in a country. Thus it is related to the price level of goods and services. But the relation between the value of money and price level is an inverse one.

Symbol of Rupee

The Indian Rupee symbol designed by Mr. Udayakumar, Villupuram Dist Tamil Nadu. It was approved by the Government of India on 15-July-2010



The value of money is of two types

1. Internal value of money
2. External value of money

The Internal value of money refers to the purchasing power of money over domestic goods and services. The External value of money refers to the purchasing power of money over foreign goods and services.

ACTIVITY: 3

- Students to know about the value of money,
- Set up your classroom like a shop or market
- Students are asked to purchase some commodities from the shop
- Do the market activities
- Teacher and students together discuss the value of money

Nature of Money

There has been lot of controversy and confusion over the meaning and nature of money (Scitovsky). "Money is a difficult concept to define, partly because it fulfills not one but three functions, each of them providing a criterion of moneyness those of a unit of account, a medium of exchange, and a store of value". Sir John Hicks, say that "Money is defined by its functions, anything is money which is used as money, "Money is what money does".



These are the functional definitions of money because they define money in terms of the functions it performs. Some economists define money in legal terms saying that "anything which state declares as money is money". Such money possesses general acceptability and has the legal power to discharge debts. But people may not accept legal money by refusing to sell goods and services against the payments of legal tender money. On the otherhand, they may accept some other things as money which are not legally defined as money in discharge of debts. This may circulate freely.

Functions of Money

Functions of money are classified into Primary or Main function, Secondary function and Contingent function.

Primary or main functions

The important functions of money performed in every economy are classified under main functions:-

i) Medium of exchange or means of payment

Money is used to buy the goods and services.

ii) Measure of value

All the values are expressed in terms of money it is easier to determine the rate of exchange between various type of goods and services.

Secondary functions

The three important of secondary functions are

i) Standard of deferred payment

Money helps the future payments too. A borrower borrowing today places himself under an obligation to pay a specified sum of money on some specified future date.

ii) Store of value or store of purchasing power

Savings were discouraged under barter system as some commodities are perishable. The introduction of money has helped to save it for future as it is not perishable.

iii) Transfer of value or transfer of purchasing power

Money makes the exchange of goods to distant places as well as abroad possible. It was therefore felt necessary to transfer purchasing power from one place to another.

Contingent functions

1. Basis of credit
2. Increase productivity of capital
3. Measurement and Distribution of National Income

Hots
If there is no invention of money - imagine.

Inflation and Deflation
 Inflation refers to the prices are rising, the value of money will fall. Deflation refers to the prices are falling, the value of money will rise.

Savings in Banks and Investments

Savings

Savings are defined as the part of consumer's disposable income which is not used for current consumption, rather kept aside for future use. There are several ways through which a person can save money. The banking facilitates saving money through various forms of accounts.





1. Student Savings Account

There are savings accounts some banks offer specifically for young people enrolled in high school or college, and they main feature more flexible terms such as lower minimum balance requirements.

2. Savings Deposits

Savings deposits are opened by customers to save the part of their current income. The customers can withdraw their money from their accounts when they require it. The bank also gives a small amount of interest to the money in the saving deposits.

3. Current Account Deposit

Current accounts are generally opened by business firms, traders and public authorities. The current accounts help in frequent banking transactions as they are repayable on demand.

4. Fixed Deposits

Fixed deposits accounts are meant for investors who want their principle to be safe and yield them fixed yields. The fixed deposits are also called as Term deposit as, normally, they are fixed for specified period.

Benefits of Savings

- You will be financially independent sooner.
- You would not have to worry any unforeseen expenses.
- In future, you will have financial backup in place if you lose your job.
- You will be prepared if your circumstances change.

- You will be more comfortable in retirement.
- Save today for better tomorrow

Intensity to save among the students

- Teach them about taxes and accounting.
- Involve them in grown-up money decisions.
- Encourage them to apply for scholarship.
- Help them budget and apply for student loans.
- Teach them personal savings.

Encourage them to open a student Sanchayeka Scheme.

Investments

The process of investing something is known as an investment. It could be anything, i.e. money, time efforts or other resources that you exchange to earn returns in future.



Investment can be made in different investment vehicles like,

1. Stock
2. Bonds
3. Mutual funds
4. Commodity futures
5. Insurance
6. Annuities
7. Deposit account or any other securities or assets

An investment always comes with risks of losing money, but it is also true that you can reap more money with the same investment vehicle. It has a productive nature that helps in the economic growth of the country.



Comparison of Savings and Investments

Basis for comparison	Savings	Investments
Meaning	Savings represents that part of the person's income which is not used for consumption	Investment refers to the process of investing funds in capital asset, with a view to generate returns
Purpose	Savings are made to fulfil short term or urgent requirements	Investment is made to provide returns and help in capital formation
Risk	Low or negligible	Very high
Returns	No or Less	Comparatively high
Liquidity	Highly liquid	Less liquid

Black Money

Black Money is any money on which it is not paid to the government. Black Money is money earned through any illegal activity controlled by country regulations. Black money proceeds are usually received in cash from underground economic activity and, as such, are not taxed.



Black Money

The black money is accumulated by the criminals, smugglers, hoarders, tax-evaders and other anti-social elements of the society. In India, black money is funds earned in the black market, on which income and other taxes have not been paid. The total amount of black money deposited in foreign banks by Indians is unknown. The root cause for the increasing rate of black money in the country is the lack of strict punishments for the offenders.

Effects of Black Money on economy

1. Dual economy
2. Tax evasion, thereby loss of revenue to government.
3. Undermining equity
4. Widening gap between the rich and poor
5. Lavish consumption spending
6. Distortion of production pattern

7. Distribution of scarce resource
8. Effects on production.



Demonetization

In India, On 8-November-2016, the Government of India announced demonetization of all ₹500 and ₹1000 bank notes against Black Money.

Recent steps against Black Money

- 1 Under pressure from India and other countries, Switzerland has made key changes in its local laws governing assistance to foreign allegedly stashed in Swiss Banks.
- 2 Special Investigation Team appointed by government on the directions of Supreme Court on black money.
- 3 Demonetization

Some Legislative Framework in India against to Black Money

- 1 Prevention of money laundering act 2002
- 2 Lokpal and Lokayukta act
- 3 Prevention of corruption act- 1988
- 4 The undisclosed foreign Income and Asset Bill(Imposition of Tax) 2015
- 5 Benami transactions prohibition act 1988 amended in 2016
- 6 The Real Estate (Regulation and Development) Act, 2016



Recap

- The word Money is derived from Roman word “Moneta Juno”.
- Barter System - Men exchanged goods for goods without the use of Money.
- Some of the major stages through which money has evolved are Commodity Money, Metallic Money, Paper Money, Credit Money, Near Money and recent forms of Money.
- Value of money is meant the purchasing power of money over goods and services in a country.
- Money is defined by its functions: anything is money which is used as money:“Money is what money does”.
- Savings are defined as the part of consumer's disposable income which is not used for current consumption, rather kept aside for future use.
- Black Money is money earned through any illegal activity controlled by country regulations.

GLOSSARY

Coincidence	accident	தற்செயல்
Demonitization	to officially stop using particular	பண மதிப்பு குறைப்பு
Dual Economy	an economic system that consists of two very different parts	இணை பொருளாதாரம்
Purchasing Power	the value of money considered as the amount of goods it will buy	வாங்கும் சக்தி
Unanimity	the state of being unanimous	ஒரு மனதாக முடிவெடுத்தல்
Tax Evasion	ways of illegally paying less tax	வரி ஏற்பாடு
Deterioration	the process of becoming progressively worse	மேம்பாசம் அடைதல்



Evaluation

I Choose the correct answer.

- Which metals were used for metallic money?
 - gold
 - silver
 - bronze
 - all the above
- Who introduced the paper money?
 - British
 - Turkish
 - The Mugual Empire
 - Mauryas



- The value of money is
 - Internal value of money
 - External value of money
 - Both a & b
 - None of these
- Which is the Bank Money?
 - Cheque
 - Draft
 - Credit and Debit cards
 - All the above
- Pick out the incorrect one:
Investment can be made in different vehicle.
 - Stock
 - bonds
 - Mutual fund
 - Pay tax



6. Who is responsible for the collection and publication of monetary and financial information?
- Finance commission
 - Finance Ministry
 - Reserve Bank of India
 - Auditor and Comptroller General of India

II Fill in the blanks.

- Online Banking is also known as _____.
- _____ is what money does.
- The term of bank is derived from _____ word.
- Value of money is meant _____ of money.
- The Indian banking regulation act of _____.

III Match the following.

1. Barter system	tax evaders
2. Reserve Bank act	Electronic Money
3. E- Money	Consumer's disposable income
4. Savings	exchanged goods for goods
5. Black money	1935

IV Write the one word answer.

- The word Money is derived from?
- Which bank gives both short term and long term loans?

V Choose the correct statement.

- Barter system had many deficiency like
 - Lack of double coincidence of wants
 - No difficulties of storing wealth
 - Common measure of value
 - Indivisibility of commodities
 - I and II is correct
 - I and IV is correct**

- I, III and IV is correct
- All are correct

VI Find out the odd one.

- Recent forms of money transactions are
 - Credit card
 - Barter system
 - Debit card
 - Online banking
- Effects of black money on economy is
 - Dual economy
 - Undermining equity
 - No effects on production
 - lavish consumption spending

VII Write short answer.

- What is the Barter System?
- What are the recent forms of money?
- Short note on E-Banking and E-Money.
- What are the essential of Money in your life?
- What is the Value of Money?
- What is the Commercial Bank and its types of Deposits?
- What is Savings and Investment?
- What is meant by Black Money?
- What are the effects of black money on economy?

VIII Write Brief answer.

- What are the disadvantages of barter system?
- Write about the evolution of Money?
- What are the functions of Money? and explain it.
- Explain the types of bank Deposits.
- What are the difference between savings and investment?
- What are the effects of black money on economy?

IX Project and Activity.

- Students are asked to prepare a chart containing dummy images of new and old currencies in India and also from other countries.



2. Go to your nearest Post Office and know about the savings scheme in India and teachers and students are discuss about the savings schemes.

X Life skills.

1. Students to know about the value of money, Set up your classroom like a shop or market.
2. Students are asked to purchase some commodities from the shop, Do the market activities.
3. Teacher and students together discuss the value of money.



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- *Jhingan - Monetary Economics*
- *Jagdish Handa - Monetary economics*
- *Wynne A. H. Godley - Monetary economics*
- *Mervyn K. Lewis - Monetary Economics*



INTERNET RESOURCES

- www.investopedia.com
- www.vikaspedia.com
- www.coinsindia.com



ICT CORNER

UNIT-1. MONEY, SAVINGS AND INVESTMENTS

Steps

- Open the Browser and type the URL given below (or) Scan the QR Code.
- Go to Currency converter
- Go to drop down menu, select any country name (Ex. India-America)

Website URL:

<https://fx-rate.net/>



B360_8_SOCIAL_EM



SOCIAL SCIENCE- VIII

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