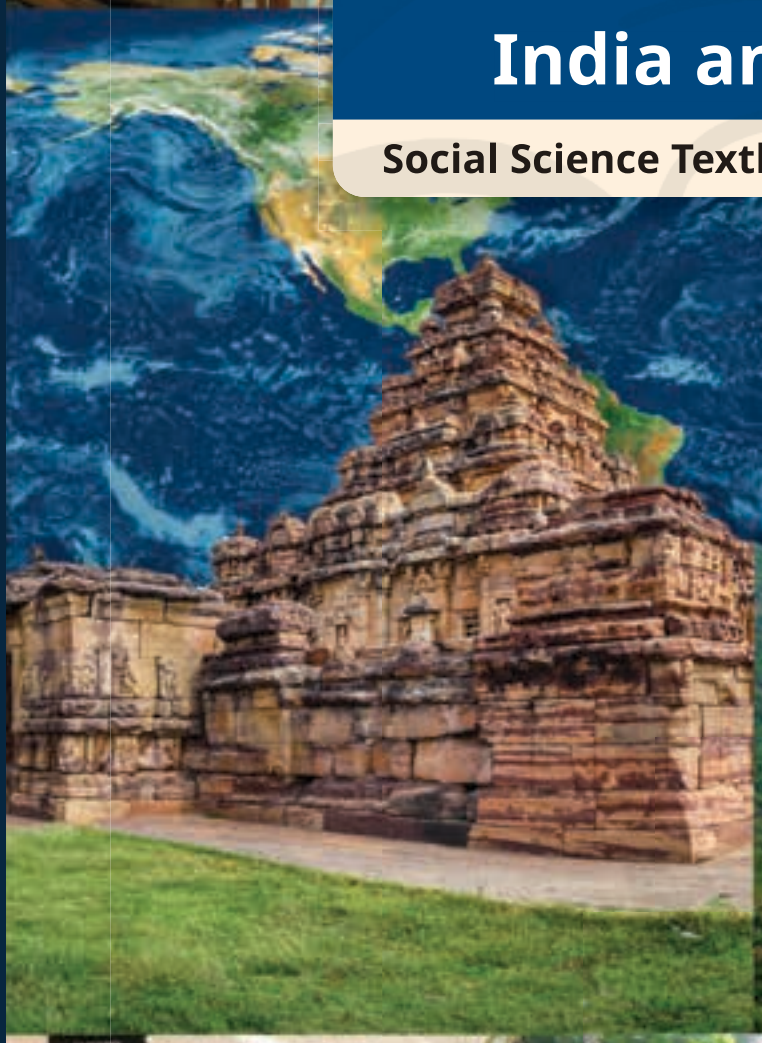
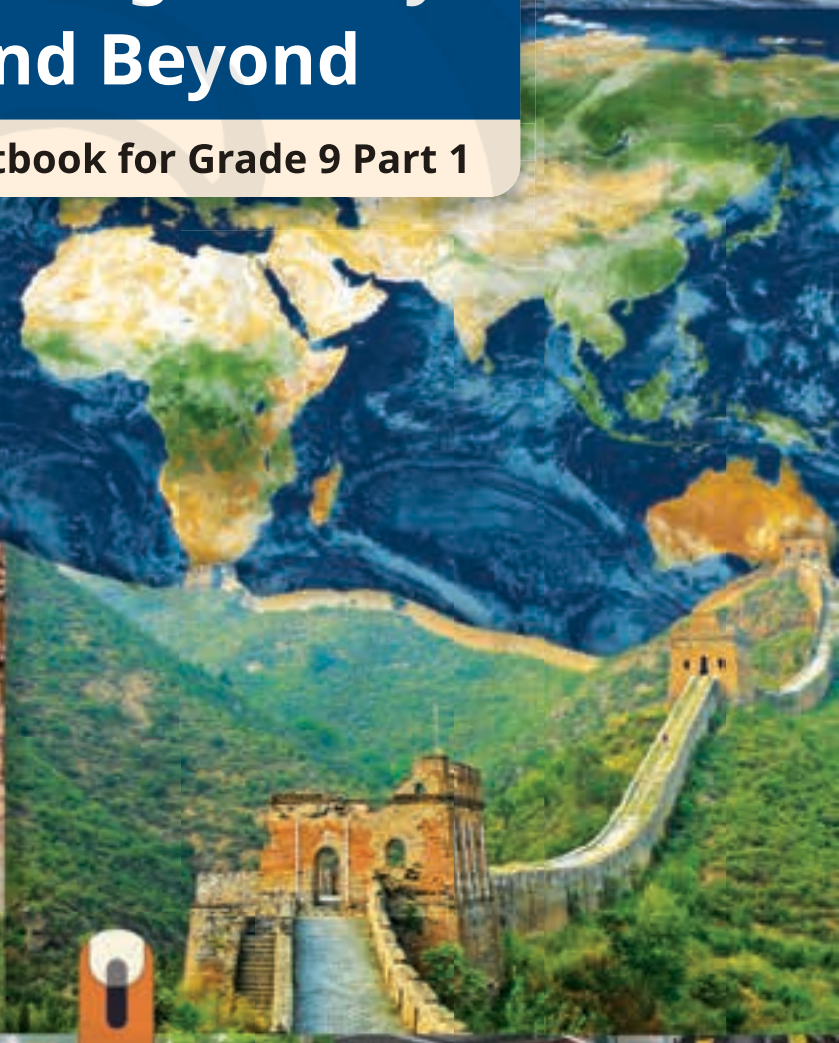
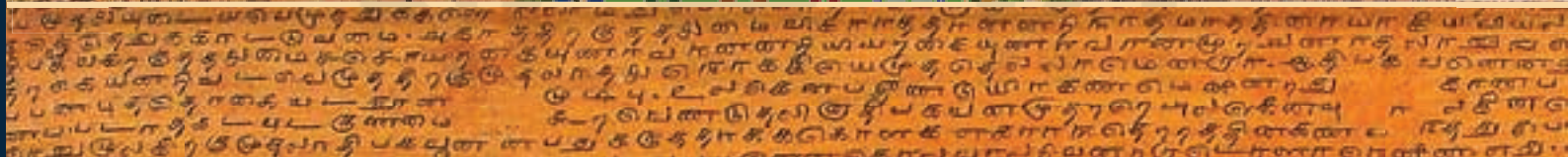
Understanding Society: India and Beyond

Social Science Textbook for Grade 9 Part 1







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LiFE
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Understanding Society: India and Beyond

Social Science Textbook for Grade 9 | Part 1

विद्या ऽमृतमश्नुते

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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Foreword

The National Education Policy (NEP) 2020 envisions an education system that is firmly rooted in India's civilisational wisdom, values, and ethical traditions. The rich intellectual heritage simultaneously enables learners to engage meaningfully with the complexities and possibilities of a rapidly changing world. The National Curriculum Framework for School Education (NCF-SE) 2023 provides concrete expression to this vision by laying out a coherent curricular pathway across stages of schooling that nurtures critical thinking, creativity, and sensitivity, along with the values and dispositions that are needed for responsible citizenship in an interconnected global society.

Learners have progressed through the Foundational, Preparatory, and Middle Stages, where their inherent potential has been nurtured holistically. Now, they enter the Secondary Stage with enhanced capacity for reflection, reasoning, enquiry, and self-expression. Spanning across Grades 9 to 12, also known as the adolescent stage, it marks a crucial period in the intellectual and personal growth of the students. It prepares them to engage with abstract ideas, complex social realities, ethical dilemmas, and the expanding universe of knowledge, while deepening their understanding of the self and the world around them.

The NCF-SE 2023 recommends that the curriculum for Grades 9–10 equips students with the skills that are needed to grow as they advance in their lives. Students can use these skills for reasoning, argumentation, and effective communication. It endeavours to enhance their analytical and descriptive capabilities to prepare them for the challenges and opportunities that await them. A diverse curriculum, covering ten subjects: three languages—including at least two languages native to India—Science, Mathematics, Social Sciences, Art Education, Physical Education and Well-being, Individuals in Society/Environmental Education, and Vocational Education, promotes their holistic development.

As envisaged in the NCF-SE 2023, the Secondary Stage provides learners with opportunities to engage more deeply with the study of society and develop the ability to analyse social processes, interpret diverse perspectives, and reflect on issues that shape their lives. Social Science learning at this stage is expected to cultivate analytical and discursive abilities, encourage critical inquiry, promote intercultural understanding, and enable learners to participate with confidence and responsibility in civic and social life. It is in this spirit that *Understanding Society: India and Beyond*, the Grade 9 Social Science textbook for the Secondary Stage, has been conceptualised and developed.

The textbook presents a range of themes and perspectives that reflect the socio-cultural and geographical diversity of India and the wider world, enabling learners to relate their lived experiences to broader social realities. The content has been carefully selected to engage students with questions related to society, governance, environment, culture, economy, and human relationships. This approach aims to encourage learners to think critically and empathetically about the world they inhabit. At the same time, the textbook draws upon India's intellectual and cultural traditions, weaving into its elements of Indian Knowledge Systems and our shared heritage, while meaningfully connecting them with contemporary concerns and experiences.

While *Understanding Society: India and Beyond* serves as a central learning resource, it also invites students to engage with a broader world of books, media, digital archives, libraries, and community knowledge. The role of teachers, parents, and school libraries is, therefore, pivotal in nurturing a rich culture of reading, dialogue, and independent exploration at this stage. The textbook integrates technology through the use of QR codes in each unit, which provide additional reading material and resources.

The National Council of Educational Research and Training acknowledges with deep appreciation the contributions of the Textbook Development Team, subject experts, pedagogues, practising teachers, reviewers, and all others who have supported the development of this textbook. We hope that *Understanding Society: India and Beyond* will inspire learners to think deeply, communicate confidently, and participate thoughtfully in the intellectual and social life of our nation and the world. We also warmly welcome suggestions and feedback from all its users for further improvement in the subsequent editions.

Dinesh Prasad Saklani
Director
National Council of Educational
Research and Training

June 2026
New Delhi

About the Book

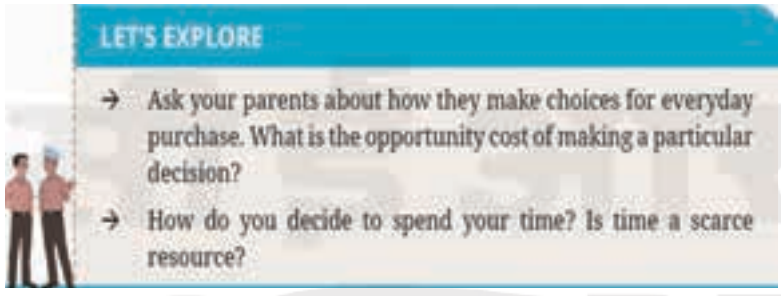
Your journey through this book

This new textbook offers many features that we hope you will find both engaging and enjoyable. As you explore the book, you will come across carefully chosen illustrations, including photographs, maps, diagrams, and infographics that support and enrich your understanding. These visuals are meant to help you observe closely, think critically, and connect ideas more clearly.

Each section in the chapter is designed to encourage inquiry, discussion, and reflection. Your teacher will guide you in using the textbook effectively and help you make the most of the learning opportunities it offers. Let us take you on a brief tour of the book and its key features.

1. Each chapter begins with 'The Big Questions' for giving you an idea of what you are going to learn in chapters.

2. Besides 'The Big Questions', you will find a QR code that links to videos, puzzles, games, stories, and other interactive content related to the chapter. Scan it (with an adult's help if needed) and explore the material to deepen your understanding.
3. As we move through the chapter you will find some sections called 'Let's Explore'. These sections include engaging activities and questions designed to deepen your understanding, encourage curiosity, and help you learn through exploration and experience.



4. Definitions of technical and difficult terms in margins are given to aid your learning process.
5. 'Think About It' sections in each chapter propose activities, in-text exercises, and questions that invite deeper reflection. These will encourage you to connect concepts with your own experiences and present-day concerns.

Fig. 4.29: An illustration from the Papyrus of Ani

THINK ABOUT IT

Why do you think there is a scale with a heart on one side and a feather on the other? What can this papyrus tell us about early Egyptian beliefs?

6. 'Don't Miss Out' highlights intriguing and lesser-known facts that spark curiosity and interest. It encourages you to pause, explore further, and enjoy discovering beyond the main narrative.

DON'T MISS OUT

Every year, 25th January is celebrated as National Voters' Day, and there is a voter's pledge that goes as follows —

"We, the citizens of India, having abiding faith in democracy, hereby pledge to uphold the democratic traditions of our country and the dignity of free, fair and peaceful elections, and to vote in every election fearlessly and without being influenced by considerations of religion, race, caste, community, language or any inducement".

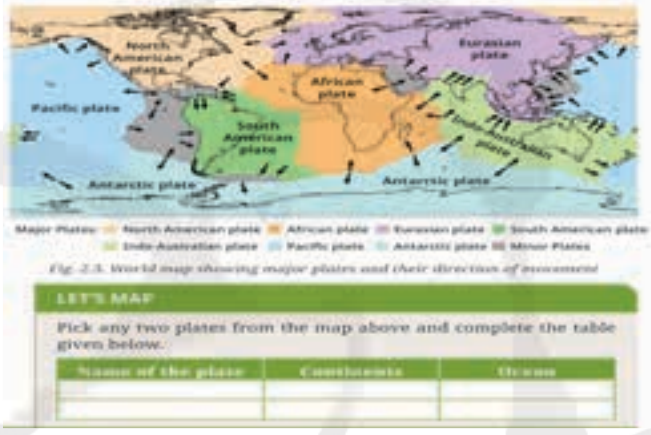
7. 'Let's Recall' revisits important ideas and concepts that you have already studied in earlier grades or chapters. It helps you recall prior knowledge and connect it with new ideas and learning in the chapter.

LET US RECALL

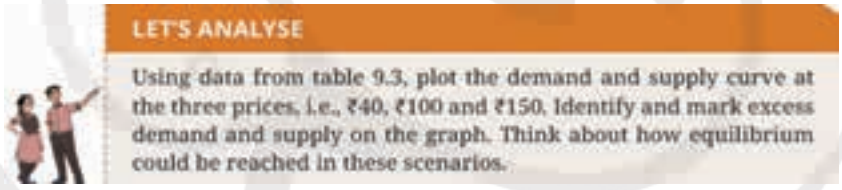
Do you remember studying about the Silk route in Grade 7? How was India connected with it? Can you recollect China's contact with India with reference to Buddhism that you studied in Grade 7?

8. ‘Let’s Map’ uses maps and visuals to locate important places, regions, and events discussed in the chapter. It helps you to strengthen spatial understanding and connect events with geography.

   Note: All maps used in the textbook may be treated as approximate and not exact.



9. ‘Let’s Analyse’ encourages you to examine events, ideas, and sources more closely. It helps to develop critical thinking by asking why and how, not just what happened.



10. ‘Timelines’ present events in a sequential order to help you understand when they occurred and how they are connected. They help you see patterns of change and continuity over time.

    Note: Dates are generally subject to revision based on new findings. All timelines displayed in this book are based on accurate radiocarbon dates.

Fig. 4.18. Timeline showing Harappan Civilisation

11. At the end of every chapter, “Before we move on” summarises the core ideas and key learnings explored in the chapter. This is followed by a range of exercises, questions, and projects that encourage reflection, application, and deeper understanding.

Your teacher will guide you through this journey of learning, and we encourage you to discuss and try some activities with your parents or guardians. Exploring together can make the experience even more meaningful and fun.

We hope you enjoy this journey through the textbook and discover new ideas along the way!

A Note for the Teacher

The secondary stage marks an important phase in the intellectual, emotional, and social development of learners. Students entering Grade 9 are made capable of abstract thinking, evidence-based reasoning, reflection, and independent inquiry. Aligned with the vision of the National Education Policy (2020) and the National Curriculum Framework for School Education (2023), this textbook seeks to nurture informed, responsible, and reflective citizens. The focus is on developing the competencies required to engage thoughtfully with the world.

Social Science in Grade 9 brings together the disciplines of History, Geography, Political Science, and Economics. While each discipline offers its own lens for understanding society, learners may be guided to recognise the connections among them. Historical developments influence political institutions; geographical conditions shape economic activities; economic processes affect social relations; and political decisions impact both people and the environment. Such an integrated understanding enables students to appreciate the interconnectedness of human societies.

The textbook has been designed to support inquiry-based and experiential learning. Illustrations, maps, infographics, timelines, and other visual materials have been carefully selected to support understanding of concepts. Each section has been designed to build competencies such as critical thinking, communication, collaboration, and ethical reasoning. The section 'Your journey through the textbook' illustrates the various pedagogical tools that have bee used in this textbook.

This textbook also gives ample opportunities to teachers to play a crucial role in creating learning environments where students actively participate in the construction of knowledge. Students may be given opportunities to examine sources, interpret maps and visual data, identify patterns, analyse causes and consequences, and draw comparisons and conclusions based on evidence. In this process, a variety of resources such as primary sources and other credible resources can serve as valuable pedagogical tools that connect classroom learning with contemporary realities.

Emphasise the development of critical thinking. Encourage learners to evaluate evidence, appreciate multiple perspectives, and understand that many social issues require careful analysis rather than simple answers. Such skills are increasingly important in a world where information is abundant but not always accurate.

Ultimately, the study of Social Science at this stage help learners develop a nuanced understanding of society, appreciate multiple perspectives, and recognise their role as active participants in a democratic and interconnected world.

Letter to the Student

Dear Student,

Welcome to Grade 9. This is an important stage in your learning journey, where you will explore ideas with greater depth, curiosity, and independence. As you grow in understanding and awareness, you will also develop the ability to think critically, ask thoughtful questions, and connect your learning to the world around you. The knowledge and experiences you gain at this stage will help shape your perspectives and prepare you to participate thoughtfully and responsibly in society.

In the middle stage (Grades 6–8), you explored Social Science through five broad themes: India and the World: Land and the People; Tapestry of the Past; Our Cultural Heritage and Knowledge Traditions; Governance and Democracy; and Economic Life Around Us. These themes helped you discover new ideas and reflect on important questions about society and human life. From exploring how geographical features have shaped civilisations to understanding how the past influences our identities, and from recognising the importance of responsible citizenship to examining the economic life of a large country like India, you explored important aspects of human society.

Building on these experiences, Social Science in Grade 9 will help you develop a deeper understanding of society through its four core disciplines: Geography, History, Political Science, and Economics. While each discipline focuses on a distinct aspect of human life and society, together they will help you understand the interconnected nature of the world around you.

This textbook emphasises meaningful learning, critical thinking, and the real-life application of knowledge. You will be encouraged to ask questions, analyse information, examine multiple perspectives, and form reasoned conclusions. Activities, projects, discussions, and inquiry-based tasks are included to help you learn through exploration and experience, both individually and collaboratively.

Illustrations, maps, charts, tables, and other visual materials have been carefully selected to support understanding and interpretation. Each section has been designed to build competencies such as critical thinking, communication, collaboration, and ethical reasoning.

As you explore society in greater depth, this journey will help you understand how the past, present, and future are interconnected and how each shapes the lives we lead today. It will also encourage you to

recognise your role as an informed, empathetic, and responsible citizen, rooted in constitutional values such as democracy, justice, equality, and respect for diversity.

We hope this book inspires curiosity, confidence, and a lifelong love for learning, and helps you understand the world and your role in shaping a better future.

With best wishes for a meaningful learning journey.

A Note on the Pronunciation of Sanskrit Words— in case you need guidance sometimes

Since this textbook is in English, we use the Roman alphabet. But we will also encounter some words in Sanskrit and other Indian languages. The Roman alphabet cannot make their pronunciation clear without some additional marks or signs, such as dashes, dots or accents, called 'diacritical marks' or simply 'diacritics'. You can ignore all these marks if you wish, as their standard spelling and their spelling with diacritics will generally be the same. However, as we are using only a few simple marks, you will find it easy to get used to them. You will also find that they help you pronounce Sanskrit and other Indian language words correctly.

For those who wish to know the precise correspondence between the Devanāgarī alphabet and the Roman script in our system, the tables of letters are as follows:

Transliteration Table

Common Indian Language Alphabet – Devanāgarī to Roman script

Vowels	अ	a	आ	ā	इ	ि	ई	ी	उ	u	ऊ	ū
	ऋ	ṛi	ॠ	ṝi	ए	e	ऐ	ai	ओ	o	औ	au
Consonants	क	ka	ख	kha	ग	ga	घ	gha	ङ	ṅa		
	च	cha	छ	chha	ज	ja	झ	jha	ञ	ña		
	ट	ṭa	ठ	ṭha	ड	ḍa	ढ	ḍha	ण	ṇa		
	त	ta	थ	tha	द	da	ध	dha	न	na		
	प	pa	फ	pha	ब	ba	भ	bha	म	ma		
	य	ya	र	ra	ल	la	व	va				
	श	śha	ष	ṣha	स	sa	ह	ha	ळ	ḷa		
	अं	aṁ	अः	aḥ								

Conjunct Consonants – a few examples based on the first table

क्ष	kṣha	त्र	tra	ज्ञ	jña	श्र	śhra	र्ण	rṇa	न्ध्य	ndhya	च्छ	chchha

- Sanskrit has clear rules regarding where to use **anusvāra** (**bindu** – अं = aṁ) – (the pure nasalised consonant) – and where to use a nasal pañchamākṣhara (ṅ, ñ, ṇ, n, m).

- Accordingly, during transliteration, wherever there is rule or option of pañchamākṣhara, only the pañchamākṣhara would be used.

  E.g.: • पञ्चाङ्ग = *pañchāṅga* — *Not* – पंचांग = *paṁchāṁga*

  • सङ्ख्या/संख्या = *saṅkhyā* — *Not* – *saṁkhyā*

- In places other than the above, anusvāra would be used.

  E.g.: • अंश = *aṁśha* — *Not* – *anśha*

- In Hindi and other Indian languages too, the same above rule will apply.

  E.g.: • कंगन ⇒ कङ्गन = *kaṅgan* — *Not* – *kaṁgan*

■ The rule of 'schwa-deletion' (or syncope) found in many contemporary Northern, Western and Eastern Indian languages like Hindi, etc., needs to be followed, wherein, many-a-times the last and sometimes a middle 'a' gets deleted.

  Ex.: • तबला = *tablā* — *Not* – *tabalā*

- However, there is strictly no schwa-deletion in original Sanskrit words.

  Ex.: • राम = *Rāma* — *Not* – राम् = *Rām, nor* – रामा = *Rāmā*

  • योग = *Yoga* — *Not* – योग् = *Yog, nor* – योगा = *Yogā*

[A short, crisp and constricted 'अ' 'a' should be pronounced at the end of these Sanskrit words.]

- English spelling of words found in the Indian constitution, laws, names of government schemes or contemporary persons, places, languages, brands, etc. should be retained as they are. Here, many original Sanskrit words have been standardised in their Hindiised forms, with schwa-deletion applied. The spellings of such names in respective languages should be adhered to. However, where appropriate, diacritic markings can optionally be used without changing the standard spelling.

  Ex.: • भारत = *Bharat or Bhārat* — *Not* – *Bhārata*

  • जल जीवन मिशन = *Jal Jeevan Mission* — *Not* – *Jala-Jīvana Mission*

  • रबीन्द्रनाथ ठाकुर = *Rabindranath Tagore* — *Not* – *Rabīndranāth Ṭhākur*

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a [1]**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity;

and to promote among them all

FRATERNITY assuring the dignity of the individual and the [2][unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

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1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)

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CONSTITUTION OF INDIA

Part III (Articles 12 – 35)
(Subject to certain conditions, some exceptions and reasonable restrictions)

guarantees these

Fundamental Rights

Right to Equality

- before law and equal protection of laws;
- irrespective of religion, race, caste, sex or place of birth;
- of opportunity in public employment;
- by abolition of untouchability and titles.

Right to Freedom

- of expression, assembly, association, movement, residence and profession;
- of certain protections in respect of conviction for offences;
- of protection of life and personal liberty;
- of free and compulsory education for children between the age of six and fourteen years;
- of protection against arrest and detention in certain cases.

Right against Exploitation

- for prohibition of traffic in human beings and forced labour;
- for prohibition of employment of children in hazardous jobs.

Right to Freedom of Religion

- freedom of conscience and free profession, practice and propagation of religion;
- freedom to manage religious affairs;
- freedom as to payment of taxes for promotion of any particular religion;
- freedom as to attendance at religious instruction or religious worship in certain educational institutions.

Cultural and Educational Rights

- for protection of interests of minorities;
- for minorities to establish and administer educational institutions;
- saving of certain Laws 31A–31D.

Right to Constitutional Remedies

- by issuance of directions or orders or writs by the Supreme Court and High Courts for enforcement of these Fundamental Rights.

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Contents

Vasudhaiva Kuṭumbakam:

The whole world is family.

Chapter 1
Understanding Social Science

In Grades 6 to 8, we have explored Social Science through stories of people, places, and events. As you enter Grade 9, it is time to pause and understand what 'Social Science' truly means and why it matters.

Human beings live in societies and depend on each other in many ways. Our lives are shaped by the environment, the institutions that govern us, the economic activities that meet our needs, and the traditions and ideas passed down through generations. Understanding these connections is the foundation of Social Science, which seeks to understand their intricate patterns and influences.

In simple words, Social Science is the systematic study of human society. It not only tells us what happened or where things are located, but also explains why events occur, how people live together, how environments influence life, how governments function, how economies operate, and how the past and the present together shape the world.

While subjects like Physics, Chemistry, and Biology study the natural world, Social Science focuses on society, institutions, cultures, and human interactions. It helps us understand not only what happens in our social world, but also why it happens and how different aspects of life are interconnected.

Social Science in Everyday Life

Think about a day in your life.

You wake up in a house built with materials sourced from different places. The food you eat may come from various regions of the country. Before it reaches your plate, it has been harvested, processed, transported, bought, and sold through the efforts of many people. You travel on roads planned and maintained by public authorities. You study in a school shaped by educational policies and programmes. The electricity that you use is generated at distant power stations and delivered through a vast and complex network.

Even the simplest daily activities rely on systems of governance, economic production, social cooperation, and the natural environment.

Now, look beyond your immediate surroundings.

- Why do some people live in crowded cities while others live in scattered villages?
- Why do different communities speak different languages and follow different traditions?
- Why do some regions depend on farming, while others focus on industry or trade?
- How do governments make decisions that affect millions of people?
- Why are certain regions more prone to floods?
- Why does agriculture flourish in some regions but not in others?
- How does climate change influence our lives?

Questions like these show that society does not function by chance. It is shaped by history, geography, institutions, resources, and human choices. Social Science helps us explore such questions and seek answers through careful observation, evidence, and logical reasoning.

LET'S ANALYSE

Observe your surroundings and identify a change that has taken place in your locality over the past five years. It could be related to transport, housing, education, technology, or the environment.

Discuss in groups:

→ What was the situation earlier?

→ What has changed?

→ What might have caused this change?

→ How has it affected people's lives?

Prepare a short report and present it in class.

Your daily experiences and the changes you observe around you reveal how Social Science builds connections among people, places, and systems. Simple observations like these help you see society as one connected story rather than a collection of separate pieces.

Understanding Society through Time and Traditions

Society has not always been as it is today, and over thousands of years, it has changed greatly. Early human communities depended directly on nature for survival, and with time, people learnt to grow crops, domesticate animals, build settlements, develop tools, exchange goods, and organise systems of governance. Villages developed into towns, and towns grew into cities. New ideas, inventions, and cultural exchanges gradually transformed ways of life.

This spirit of inquiry has deep roots in India's knowledge traditions. Early thinkers valued discussion, questioning, and logical reasoning to understand the world. Knowledge was explored through observation, reflection, and dialogue. For example, the concept of the ***Pañchamahābhūtas*** describes the natural world as an interconnected system in which human life is embedded. It helps explain how the environment influences settlement patterns, occupations, architecture, food habits, and health practices—an idea that remains relevant as societies respond to environmental challenges. Similarly, the idea of *vasudhaiva kuṭumbakam*, meaning 'the world is one family', expresses the interconnectedness of human societies across regions and cultures. This sense of interdependence lies at the core of what Social Science seeks to understand when it studies global interactions and relationships.

Early reflections on governance in India also linked political authority with public welfare and ethical responsibility. The *Arthaśhāstra,* attributed to Kauṭilya, composed about 2,300 years ago, examined administration, economic management, taxation, and the duties of rulers toward their people. Such works show that systematic thinking about governance and the economy existed long before modern academic disciplines developed.

These traditions demonstrate that the effort to understand society through observation, reasoning, and reflection has a long history. Modern Social Science continues this legacy using new tools and methods to study how societies function and change over time. To understand the present, we must trace this long journey of continuity and change and explore how societies evolved, how

Pañchamahābhūtas: The idea of the *Pañchamahābhūtas* (five great elements) comes from Indian philosophical traditions and explains the world as composed of five fundamental elements—earth (*Pṛithvī*), water (*Āpaḥ*), fire (*Agni*), air (*Vāyu*), and space (*Ākāśha*). Scholars use this idea to explain natural processes, the human body, and the relationship between living beings and the environment. While expressed in philosophical terms, it represents an early attempt to understand nature as an interconnected system.

institutions developed, and how relationships between people and the environment transformed. Hence, social scientists observe people's lives, conduct interviews and surveys, examine documents, and compare different times and places. By gathering information from multiple sources, they develop explanations that are supported by evidence. This way, Social Science explains both what endures and what changes, showing how the past shapes the present and how today's actions will influence the future.

Social Science as a Study of Disciplines

Human society is complex, and no single field of study can fully explain it. For example, a drought affects crops (environment), farmers' incomes (economy), government relief measures (politics), migration to cities (society), and traditional ways of coping with scarcity (culture). To understand such situations, we must examine society from different perspectives. Social Science, therefore, is not a single subject but a group of related disciplines, each focusing on a different aspect of human life. Together, they help us understand society in a comprehensive and connected way.

In Grades 9–10, Social Science primarily draws from four core disciplines—Geography, History, Political Science, and Economics—that together provide a comprehensive understanding of society. Other disciplines such as Sociology, Philosophy, Anthropology, and Psychology also form part of the broader Social Science family. These fields explore social relationships, ethical reasoning, and human behaviour in greater depth and will be further developed in higher grades.

- Geography studies the Earth, its environments, and the relationships between people and their surroundings.
- History examines the human past and helps us understand how societies change over time.
- Political Science analyses systems of governance, power, and the rights and responsibilities of citizens.
- Economics explores how societies produce, distribute, and utilise resources to meet their needs.

Each discipline asks different questions, yet all are interconnected and together provide a holistic understanding of society. Let us now explore these disciplines in detail.

Geography

Geography studies the location and distribution of places, objects, materials, and people, as well as the relationships between human societies and their surroundings. It examines both, the physical features of the Earth's surface and the human communities that inhabit it, focusing on how people interact with the natural environment and how places influence human life. Geography seeks to understand where things are located, why they are found there, and how places—near or distant—affect one another over time. It views the world as a system of interdependencies and adopts a holistic approach by integrating spatial perspectives (location and its significance) with temporal perspectives (change over time). Drawing on both natural sciences (such as Physics, Chemistry, Biology, etc.) and social sciences (including Political Science, Economics, and History), Geography helps answer questions like why India has historically been a hub of global interaction and how the Indian peninsula's long coastline facilitated contact with Africa, Europe, and Southeast Asia. Geography as a discipline takes help of various tools to understand concepts and investigate questions. It uses maps, globes, atlases, Geographical Information System (GIS), infographics, and various other instruments. In the course of next two years, you will realise how these tools enhance your understanding of the discipline.

LET'S EXPLORE

With the help of NCERT's School Bhuvan portal, you can also map your own village/ city. You can access and explore the NCERT's School Bhuvan portal by visiting the website: https://bhuvan-app1.nrsc.gov.in/mhrd_ncert/

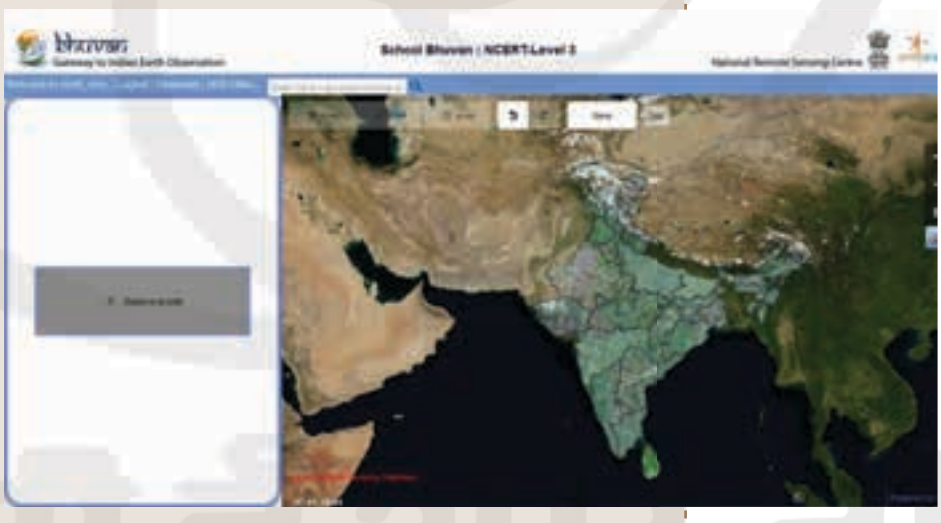


Fig. 1.1

Over the next two years, you will study the processes that shape the Earth's surface and the formation of different landforms. You will learn about the atmosphere and climate, oceans, major biomes and India's biosphere reserves. You will also be introduced to geospatial technologies, life in different regions of India and the world, geographical and socio-economic perspectives on selected issues, and the historical development of geographical knowledge.

History

History is the study of human past, through which societies seek to understand people's experiences, values, and changes over time. There are multiple ways to interpret the past and transmit cultural values from one generation to the next. One of the oldest and most influential traditions of preserving cultural memory in Bharat is the *itihāsa-purāṇa* tradition. Through stories, this tradition not only shares historical information but also gives cultural meaning to events and people. In doing so, it reinforces enduring ideals and values, offering a sense of identity and purpose. Across cultures, different historical traditions have utilised different methods. Some traditions emphasise moral and philosophical insight, while others offer documentary verification. Modern historiography, by contrast, increasingly relies on ***empirical evidence*** and uses tools, such as human genetics, carbon-14 dating, archaeology, and other scientific methods to establish timelines and understand the past.

Empirical evidence: Information collected by actual observation or experimentation.

History writing draws on a wide range of sources to understand the social realities of the past. These include archaeological and literary traditions such as travelogues, memoirs, correspondence, ***genealogical records***, folklore and oral traditions, and revenue documents. Material remains used to study the past are known as archaeological sources. These include monuments, architectural structures, excavated sites, artefacts, objects, and art, such as sculptures and paintings. Their analysis often involves scientific instruments and laboratory testing.

Genealogical records: Documents or sources that trace family lineage and ancestry by recording relationships between generations and documenting events, such as births, marriages, and deaths.

Over the next two years, you will learn about early human history and trace major developments in India from the beginnings of civilisation to the present day. You will also explore key landmarks in world history, including the Greco-Roman world, the Reformation, the Renaissance, the Enlightenment, and the Industrial Revolution. In addition, you will examine colonialism, its global impact, and various anti-colonial struggles across the world. Overall, you will develop an understanding of the histories of diverse peoples, cultures, and the events that have shaped the present.

Literary Sources

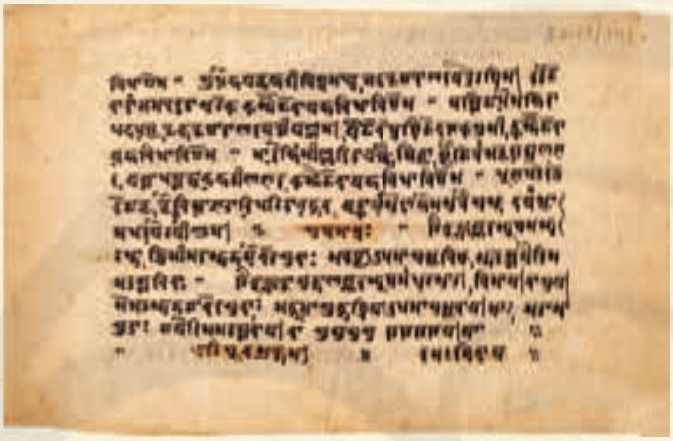


Fig. 1.2. The Sāmaveda manuscript, National Museum, New Delhi

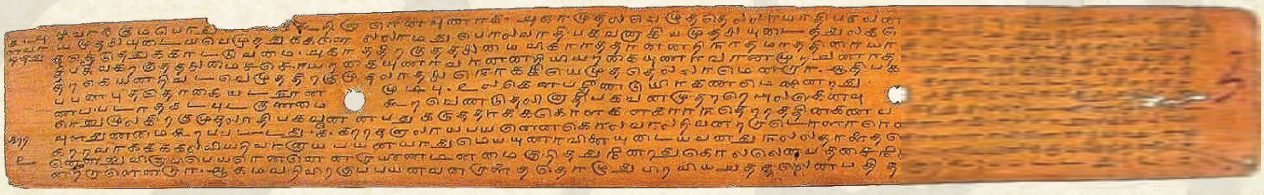


Fig. 1.3. A traditional palm-leaf manuscript of the Tirukkuṟaḷ, an ancient Tamil text of ethical wisdom

Archaeological Sources

Fig. 1.4. A terracotta figurine from the Sindhu-Sarasvatī Civilisation

Fig. 1.5. A sculpture of Viṣhṇu from the 12th century CE

Epigraphic Sources

Fig. 1.6. Brahmi inscription on part of a pillar belonging to the Gupta period

Fig. 1.7. Kannada inscription of Emperor Krishnadeva Raya at the underground Shiva temple, Prasanna Virupaksha Temple, Hampi

Numismatic Sources

Fig. 1.8. A coin issued by King Samudragupta, 4th century CE.

Fig. 1.9. A Mughal coin issued during the reign of Jahangir, showing the zodiac sign 'Sagittarius'.

Political Science

Political Science is the study of governance, which informs us how and why power is distributed, decisions are made, and policies are implemented. It is the study of constitutions, governments, and institutions of the State. Political Science also studies social movements, nation building, foreign policy, and the ways power is exercised, shared, and regulated in society and everyday life. In India's villages, the Panchayati Raj system embodies grassroots democracy by giving citizens a voice in local development planning. This shows that political power exists not only within formal institutions but also in social relationships, customs, and ideas of legitimacy. To study politics, therefore, is to examine society itself—its hierarchies and its struggles for more effective and accountable governance.

The study of politics in India began very early, alongside reflections on how society should be organised and governed. Politics was not treated as a separate discipline but was closely linked to the ideas of *dharma* (moral duty), *artha* (economic well-being), and *rājadharma* (the duties of the ruler). Early texts, such as the Vedas, Upaniṣads, and Purāṇas discuss justice, authority, social order, and the responsibilities of kings and citizens. Indian political thought is further articulated in works such as the *Mahābhārata* and *Śhukranīti*, which address governance, law, and ethical leadership. Among these, the *Arthaśhāstra* stands out as a foundational text on politics and administration, detailing how a state should be governed, how taxes should be collected, how the army should function, and how rulers should ensure the welfare of the people.

Overall, Indian political thought adopted a holistic approach, linking politics with economics, social life, morality, and defence. Power was viewed as a responsibility rather than merely a privilege. This tradition helps us understand modern institutions, such as the Panchayati Raj system, which promotes local self-governance and public participation at the village level. In this way, ancient ideas continue to shape India's democratic practices today.

Over the next two years, you will study major contemporary concepts and practices in Political Science, including democracy, elections, authority, civil society, governance and public policy, and national security and its challenges. However, a meaningful understanding of Political Science also requires your own efforts to observe and analyse the political issues around you, along with their linkages with other social science disciplines.

Economics

Economics helps us understand how individuals and societies decide how to use limited resources to meet their needs. It studies how goods and services are produced, exchanged, and distributed. It also examines how these processes shape everyday life—from the food we eat and the clothes we wear to the jobs people do and the services they use. Economics explores decision-making by consumers, producers, and governments. Consumers decide what to buy, producers determine what and how much to produce, and governments frame policies to balance goals, such as growth and stability, efficiency and fairness. In this way, economics is not only about numbers and markets but also about well-being, equity, and justice.

India has a rich and dynamic economic history. For centuries, it was one of the world's leading economies and an important centre of trade, industry, and maritime activity. Colonial rule disrupted this progress, resulting in widespread poverty, recurrent famines, and the decline of traditional industries. After independence, India began the task of rebuilding its economy. In recent decades, our country has made significant progress through improvements in infrastructure, expansion of education and technology, reduction in poverty, and rising life expectancy. Yet important challenges remain, particularly in increasing incomes and ensuring that the benefits of growth reach all sections of society.

Economic development, therefore, remains a central national goal. Understanding economics helps us recognise both achievements and challenges, and encourages us to think about how resources can be used more wisely and fairly, while ensuring sustainable growth that meets present needs without harming the ability of future generations to meet theirs.

Over the next two years, you will study the foundations of the Indian economy, markets and prices, financial management and entrepreneurship, economic growth and Gross Domestic Product (GDP), international trade, and the Union Budget. These topics will help you understand how economic decisions affect individuals, communities, and the nation as a whole.

Why Should We Study Social Science?

After exploring how Social Science helps us observe events, ask questions, and examine evidence, an important question arises: how does this knowledge help us in our lives?

The house you live in, the water you use, the roads you travel on, the school you attend, the markets you visit, and even the digital spaces you use are part of systems created and managed by society. Social Science helps us understand how these systems developed, how they function, and how they affect different groups of people. You also live among people who may speak different languages, follow diverse customs, and practise varied occupations. Why do such differences exist within the same country? How do they continue over time? Social Science explains these variations as outcomes of geographical, historical, cultural, and economic factors. This understanding builds respect and cooperation among communities. At the same time, it helps us recognise how Indian culture binds this diversity together through an underlying unity, fostering a sense of belonging, and shared identity.

In a democratic society, citizens play an active role in public life. Laws, rights, and responsibilities guide how people live together. When you understand how governments function and how decisions are made, you are better prepared to participate responsibly in civic life. Social Science also strengthens your ability to think about shared challenges. When you hear about issues, such as environmental protection, public health, employment, or urban growth, you learn to ask informed questions about their causes, effects, and possible solutions. This habit of careful questioning and reasoning is essential for addressing problems that affect society as a whole.

Most importantly, Social Science connects the past, present, and future. By understanding how past decisions shaped the present, we become better equipped to make wiser choices for the future.

The Future of Social Science

As societies change rapidly, the importance of Social Science continues to grow. New technologies, expanding cities, environmental concerns, migration, and global connections are reshaping how people live and interact. Understanding these changes requires the same skills you have begun practising in this chapter—careful observation, asking questions, examining evidence, and recognising connections.

In the years ahead, Social Science will help societies address complex issues such as climate change, sustainable development, social harmony, and equitable use of resources. It will also guide the responsible use of new technologies and support communities as they adapt to changing conditions. Most importantly, Social Science

prepares you not only to understand the world but also to take part in shaping it as informed and thoughtful citizens, while strengthening national unity and keeping us rooted in our rich cultural traditions.

The study of Social Science is, therefore, a journey—from understanding how societies evolved, to analysing how they function today, to imagining how they can become better in the future.

Secondary-Stage Social Science: Your Two-Year Learning Journey (Grades 9–10)

Social Science is not just a subject you study in school; it is a window into the world around you. By studying Social Science, you learn not only about the past and present but also about your role as a responsible citizen in shaping the future.

Over the next two years, you will explore society in greater depth through different branches of Social Science. You will examine how historical events shaped the modern world, how geographical features influence human life and economic activity, how political systems and democratic institutions function, and how economies organise production, distribution, and development. You will also study contemporary challenges, such as environmental sustainability, social diversity, citizens' rights and responsibilities, and the impact of technology and global connections. As you engage with these themes, you will learn to analyse evidence, compare perspectives, and understand how the past, present, and future are linked. This journey will help you grow into a thoughtful learner, an aware citizen, and a responsible member of the society.

The Grade 9 Social Science textbook has been designed to provide a broad and balanced introduction to the four disciplines—Geography, History, Political Science, and Economics—where each offers a distinct perspective on human life and society, together presenting a comprehensive understanding of the world.

Social Science is not about memorising dates, maps, or definitions—it is about understanding people, places, society, culture and power. It encourages you to learn from the past, analyse the present, and imagine a better future. As you turn these pages, you will not only gain knowledge but also develop the ability to think independently and act responsibly. We hope this book inspires you to reflect on the relationship between self and society, and to view the world with curiosity and empathy. Let this journey help you grow not just as a student, but as a responsible citizen of India and the world.

Chapter 2

Shaping of the Earth's Surface

The Big Questions

1. *What shapes the Earth's surface?*
2. *What is plate tectonics? What are the effects of plate movement?*
3. *How are landforms formed and how are they classified?*
4. *How are humans and other living beings connected to these landforms?*
5. *How do disasters associated with different landforms impact human lives?*

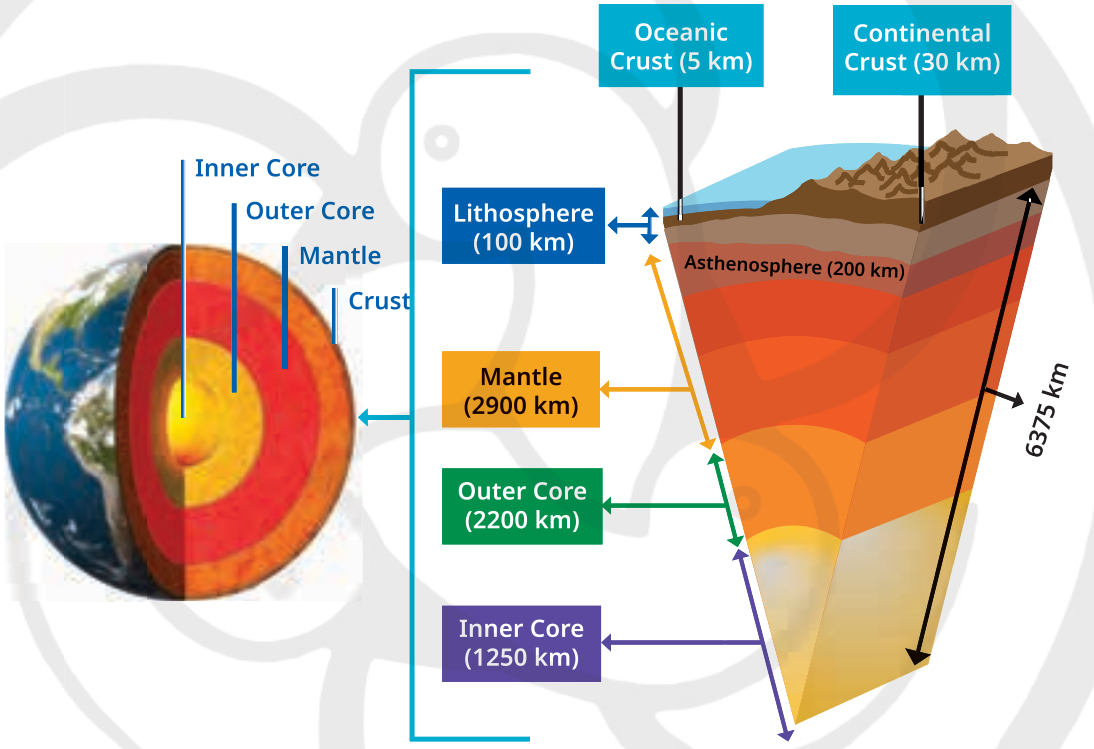
The Earth's surface is not consistent; it is constantly being transformed by powerful forces acting from within and on the surface of the planet. One of the most important ideas that explains these changes is the theory of plate tectonics, which describes how large pieces of the Earth's crust move slowly over the molten mantle. The movement of these plates gives rise to various **landforms**, such as mountains, volcanoes, plains, and valleys. Understanding plate tectonics and landforms helps us explain natural phenomena like earthquakes, volcanic eruptions, and the formation of continents and oceans, and allows us to better appreciate the dynamic nature of the Earth.

Landforms: A landform is a natural feature on the Earth's surface formed by processes, such as weathering, erosion, deposition, and the movement of the Earth's crust. Examples of landforms include mountains, valleys, plateaus, plains, deserts, and coastal features.

Plate Tectonics

Plate tectonics is an important theory, given by W.J. Morgan, in earth science, that explains the movement of the Earth's crust. According to this theory, the outermost layer of the Earth is not one single piece but is broken into several large and small pieces called **tectonic plates**. These plates move slowly over the semi-molten layer beneath them and are responsible for major physical features and natural phenomena, such as mountains, earthquakes, and volcanoes.

The Earth is made up of three main layers: **crust**, **mantle,** and **core**. The crust is the outermost layer on which we live. Below the crust lies the mantle, which is very thick and hot. The core is the innermost layer and is extremely hot and heavy. The crust along with the upper part of the mantle forms the **lithosphere.** This lithosphere is broken into different tectonic plates. Beneath the lithosphere lies the **asthenosphere**, which is semi-molten and allows the plates to move.



Crust
Thickness varies from 30–40 km under continents to 5–7 km under the ocean.

Asthenosphere
A hot, mobile layer of partially molten rock.

Outer core
A fluid layer mainly consisting of iron and nickel.

Lithosphere
The rigid outer layer of the Earth that includes the crust and upper mantle.

Mantle
The mostly solid layer between the crust and the Earth's outer core.

Inner core
A solid, hot spinning metal ball that is the densest part of the Earth.

Fig. 2.1. The Earth's interior (Given values are approximate)

Tectonic plates are massive slabs of solid rock that move very slowly, usually a few centimetres per year. There are three main types of tectonic plates—**continental plates**, which carry continents; **oceanic plates**, which carry ocean floors; and **mixed plates**, which carry both continents and oceans. Some of the major tectonic plates

of the world include the Pacific Plate, Eurasian Plate, African Plate, North American Plate, South American Plate, Indo-Australian Plate, and Antarctic Plate.

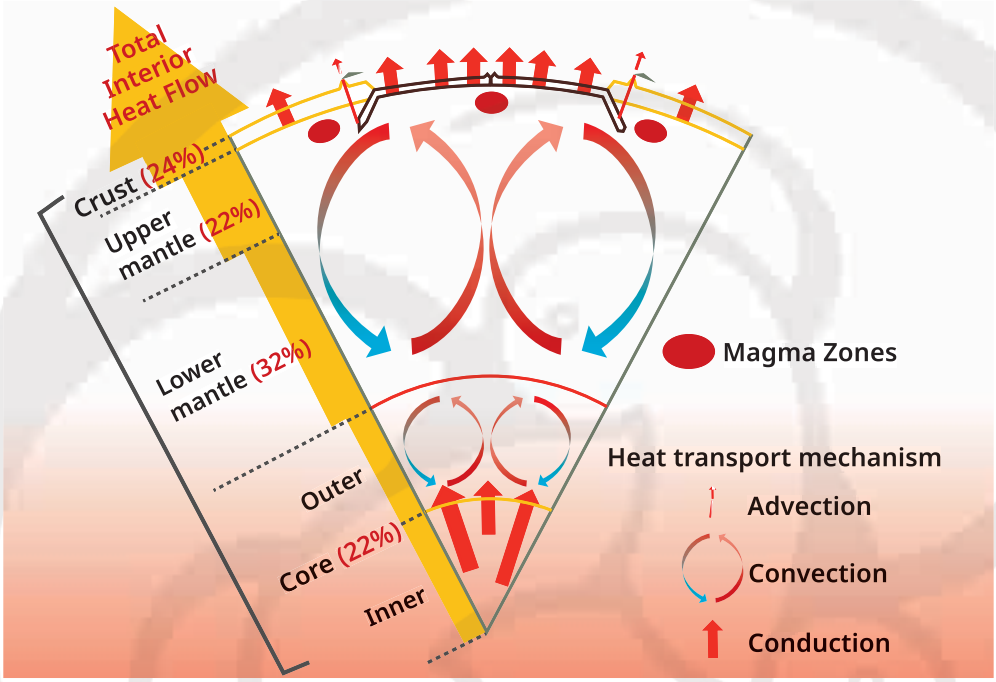


Fig. 2.2. Movement of material below the crust

The movement of tectonic plates is caused by **convection currents** in the mantle. Heat from the Earth's core causes molten material in the mantle to rise, while cooler material sinks. This continuous movement creates convection currents that push and pull the tectonic plates, causing them to move in different directions.

The edges where tectonic plates meet are called **plate boundaries**. There are three main types of plate boundaries. The first is the **convergent boundary**, where two plates move towards each other. When continental plates collide, they form fold mountains, such as the Himalaya. When an oceanic plate collides with a continental plate, the oceanic plate sinks beneath the continental plate, leading to volcanic activity and earthquakes. The second type is the **divergent boundary**, where plates move away from each other. In this case, magma rises from below and forms new crust, creating features, such as mid-ocean ridges. The Mid-Atlantic Ridge is a good example. The third type is the **transform boundary**, where plates slide past each other without creating or destroying crust. This type of movement mainly causes earthquakes, such as along the San Andreas Fault in the United States.

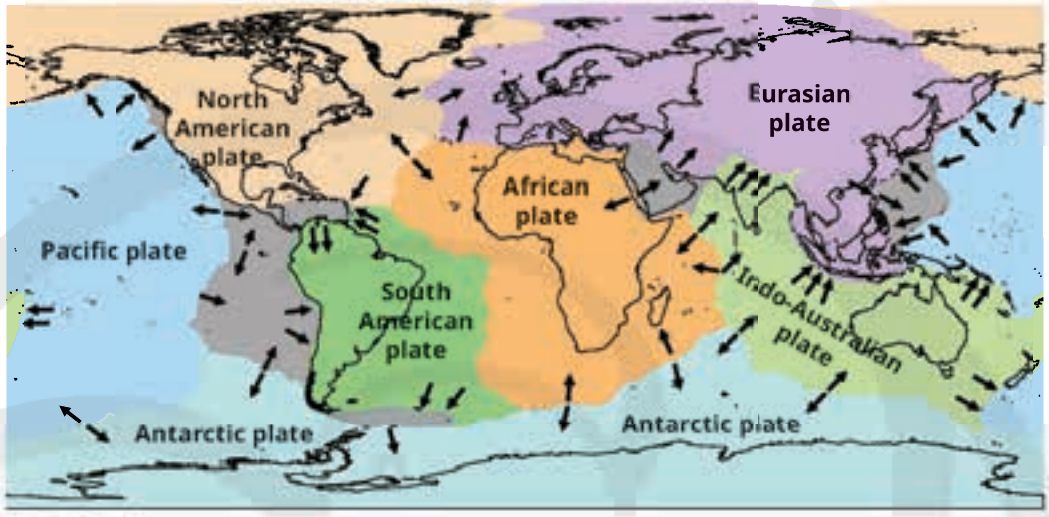


Fig. 2.3. World map showing major plates and their direction of movement

LET'S MAP

Pick any two plates from the map above and complete the table given below.

Name of the plate	Continents	Ocean

Plate tectonics plays a major role in shaping the Earth's surface. The movement of plates leads to the formation of mountains, valleys, ocean basins, volcanoes, and earthquakes. It also explains the distribution of continents and oceans across the Earth. Most earthquakes and volcanoes occur along plate boundaries, especially around the Pacific Ocean, an area known as the **Ring of Fire**.

LET'S EXPLORE

Examine the plate map (Fig. 2.3) with the earthquake and volcano map (Fig. 2.4). What correlation do you observe?

In conclusion, the theory of plate tectonics helps us understand how the Earth's surface is constantly changing. It explains the origin of many landforms and natural disasters. This theory is very important for identification of earthquake and volcano-prone regions and managing disasters arising from them.

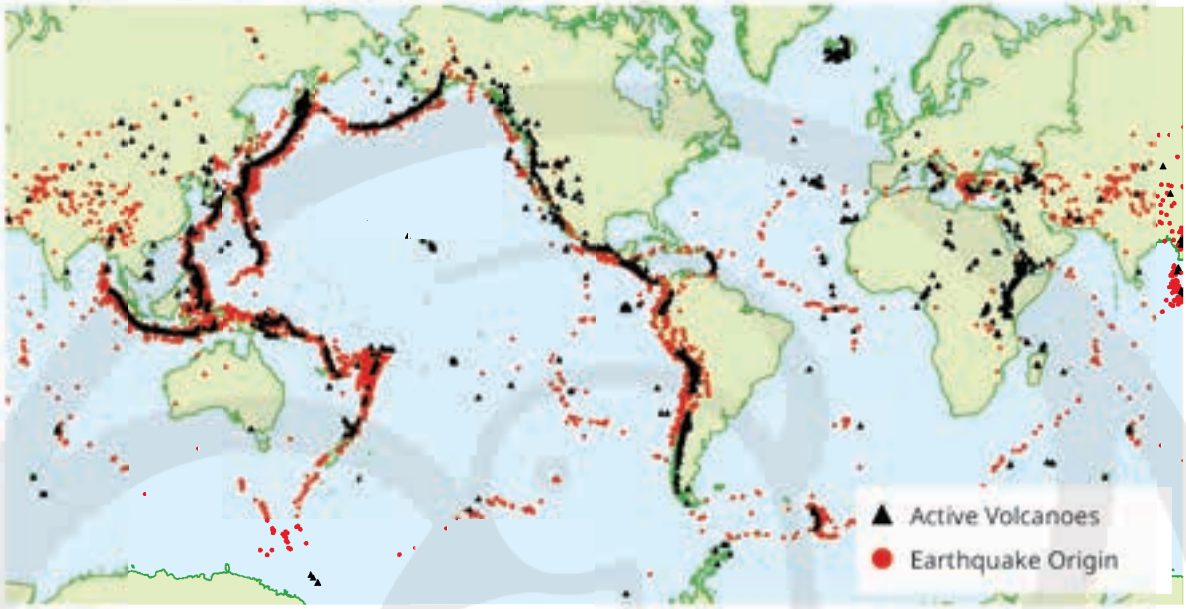


Fig. 2.4. Map showing the distribution of earthquakes and volcanoes

LET'S EXPLORE

Observe the map showing the distribution of earthquakes and volcanoes (Fig. 2.4). Can you identify which continents and countries are located around the Ring of Fire with the help of an atlas or a globe?

LET'S EXPLORE

Does India have a risk of earthquakes?

India has experienced some major earthquakes in the past, resulting in thousands of deaths. A large earthquake in a densely populated country like India can cause severe damage to life and environment. Can you find out which region is more vulnerable to earthquakes? Why do you think human lives are at risk?

Fig. 2.5. The extensive damage caused by the major earthquake in Gujarat in 2001

DON'T MISS OUT

In early times too, earthquakes were known as '*bhūkampa*', meaning the shaking of the Earth. In the *Bṛihatsaṁhitā*, Varāhamihira dedicated a section to earthquakes, noting how changes in wind, rain, clouds, animal behaviour, and planetary alignments could signal them. He attributed earthquakes to four elemental forces—*Vāyu* (wind), *Agni* (fire), *Indra* (heaven/thunder), and *Varuṇa* (water), each linked to specific constellations and regions. This reflects an early attempt to blend observations with cosmological reasoning and physical phenomenon in India.

LET'S EXPLORE

Look carefully at this photograph and answer the following questions:

→ What do you think caused this situation?

→ What could that grey powder be?

→ What does it tell us about the Earth's internal forces?

Fig. 2.6. Photograph showing the deposition by volcanic eruption

DON'T MISS OUT

The mud volcano at Baratang Island is a rare natural wonder in India and a unique attraction of the Andaman and Nicobar Islands. Unlike fiery volcanoes, here you will find mud bubbling out due to natural underground gases and pressure.

Fig. 2.7. India's only mud volcano in Baratang in the Andaman and Nicobar Islands

Process of Weathering and Erosion

Weathering and erosion play a vital role in the development of landforms by continuously breaking down and reshaping the Earth's surface. Over long periods of time, weathering and erosion work together to wear down mountains, carve valleys, form plains, and create features, such as caves, cliffs, and river deltas, gradually giving shape to the diverse landscapes we see on Earth today.

Weathering

Weathering is the process through which rocks on the Earth's surface break down into smaller pieces due to various processes. It does not involve movement of the broken material, only the breaking down. There are three main types of weathering: **physical weathering**, in which rocks break into smaller pieces due to temperature changes, frost, or wind; **chemical weathering**, in which minerals in rocks

Fig. 2.8. Types of weathering

change because of reactions with water, air, or acids, leading to new substances; and **biological weathering**, which is caused by plants, animals, or micro-organisms, for example, when plant roots grow into cracks of rocks and split them apart. Weathering plays an important role in shaping the Earth's surface and forming soil.

Erosion

Erosion is the process by which soil, rocks, and other surface materials are worn away and carried from one place to another by natural agents like water, wind, ice, or waves. Unlike weathering that only breaks down rocks, erosion involves movement of the broken material. There are several types of erosion — **water erosion**, caused by rivers, rain, or ocean waves; **wind erosion**, common in dry and sandy areas; **glacial erosion**, where moving ice scrapes and carries rocks; and **coastal erosion**, where sea waves wear away the

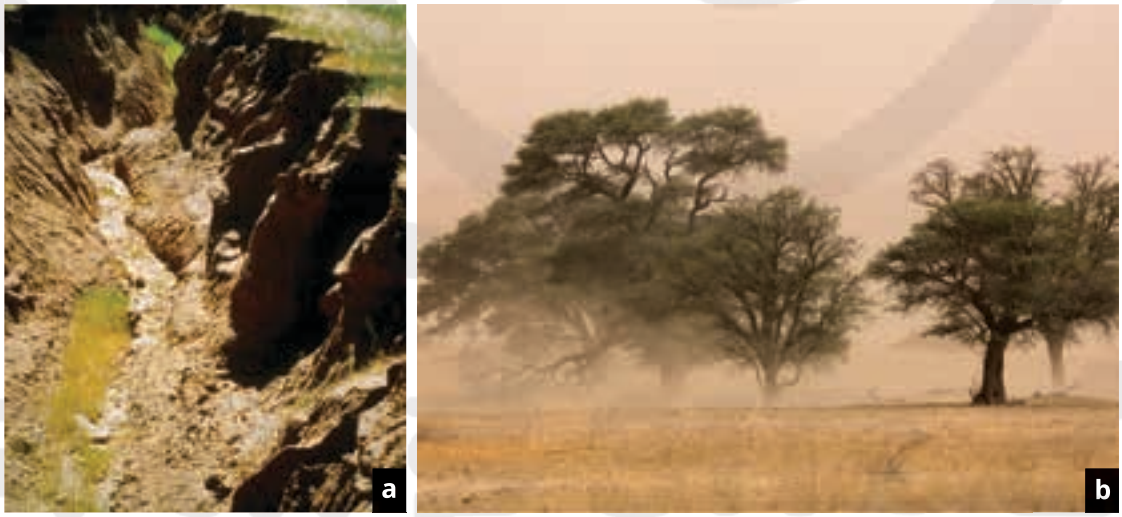


Fig. 2.9. Erosion caused by (a) water and (b) wind

land along the shore. Erosion shapes landforms and can both create and destroy features on the Earth's surface.

Erosion affects many human occupations by changing the land and soil on which people depend. For farmers, erosion removes the fertile topsoil needed for crop growth, leading to lower yields. For those living near rivers and coasts, erosion can wash away land, houses, and roads, causing damage and loss of property. In construction and mining, erosion destabilises land, posing safety risks. Even industries like tourism and fishing suffer, since beaches, rivers, and fertile lands may be destroyed. This shows that erosion not only shapes the Earth's surface but also directly affects human labour and livelihoods.

LET'S EXPLORE

Observe the photographs (Fig. 2.9) and also note the types of erosion. How are farmers affected by erosion due to water and wind?

DON'T MISS OUT

The Sindhu-Sarasvatī civilisation employed sophisticated techniques, including **contouring, bunding, terracing,** dams, and canals for water management. Multiple Sanskrit texts document these practices, including the Vedas, *Kṛiṣhiparāśhara*, Kauṭilya's *Arthaśhāstra,* and specialised treatises like *Vṛikṣhāyurveda*. The *Arthaśhāstra* contains detailed guidelines on land assessment and categorisation based on fertility and productivity.

The Zabo system in Nagaland represents an integrated farming approach using earthen bunds on hillslopes for soil and water conservation. Check dams were constructed across small streams to reduce water velocity, prevent soil erosion, and allow sediment deposition. These structures were designed to slow down water flow and enhance groundwater recharge.

Contouring: A continuous contour trench (CCT) is a water conservation technique in which trenches are dug along the contour lines of a hillside to slow down, hold, and infiltrate rainwater, preventing soil erosion and recharging groundwater.

Bunding: Earthen embankments built along contour lines to slow surface run-off, reduce soil erosion, increase water infiltration and soil moisture.

Terracing: Terracing is a soil conservation practice that creates a series of level or gently sloping steps on a hillside to prevent soil erosion.

Agents of Gradation

Agents of gradation are natural forces that wear down, transport, and deposit materials on the Earth's surface, helping to level or smooth it over time. The main agents of gradation are **running water, glaciers, wind, waves, and groundwater**. Running water

erodes rocks and soils to form valleys and plains. Glaciers scrape and carry huge amounts of material, carving U-shaped valleys. Wind shapes deserts by eroding and depositing sand. Sea waves erode coastlines to form cliffs, beaches, and bays. Groundwater dissolves rocks, such as limestone, creating caves, and sinkholes. Together, these agents are continuously modifying landforms, lowering high areas, and filling up low areas.

DON'T MISS OUT

Landforms have played a major role in shaping the history of human civilisations. Rivers and fertile plains like those of the Ganga, Nile, Brahmaputra, and Indus, gave rise to agricultural societies and early cities. Mountains acted both as barriers and protectors—the Himalayas shielded India from invasions but also allowed cultural exchanges through passes like the Khyber pass. Deserts, such as the Thar limited the development of large settlements but encouraged trade routes, such as the Silk Route. Coasts and harbours supported trade, travel, and cultural contacts with distant lands, helping kingdoms like those in south India flourish. Even today, history shows that wars, settlements, trade, and cultural growth were all deeply influenced by the land's physical features.

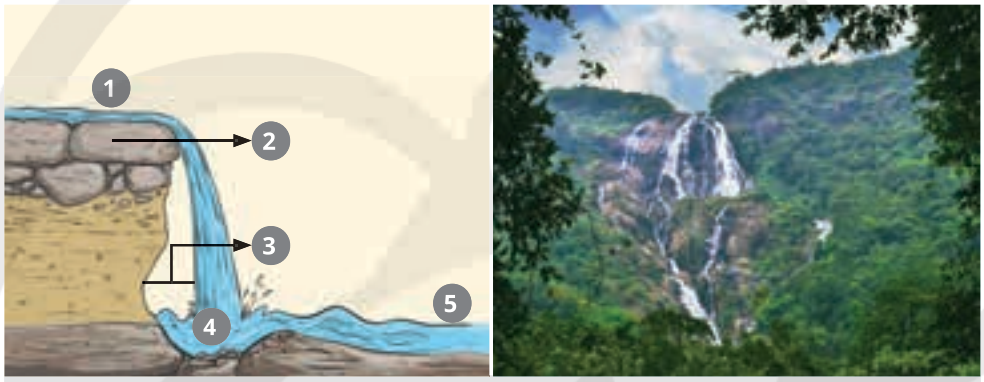
Running Water

Rivers shape the land through the processes of erosion, transportation, and deposition, creating a variety of landforms along their course. At the upper course, rivers often form **V-shaped valleys, waterfalls**, and **rapids** due to steep gradients and strong erosive forces. In the middle course, the river starts to **meander**, forming **oxbow lakes,** and **floodplains** as it loses energy and begins depositing sediments. In the lower course, the river slows further and deposits large amounts of sediment, forming **deltas, levees**, and **alluvial fans**. These landforms are not only important for understanding river dynamics but also play a vital role in agriculture, settlement, and ecosystems.

Waterfall

A **waterfall** is a landform where a river flows over a steep cliff or vertical drop, creating a dramatic fall. Waterfalls form in the upper course of rivers, where hard rocks resist erosion, while softer rocks below are worn away, creating a sudden drop. They are not only

beautiful natural features, but also attract tourists, making them important for local tourism and economy. Waterfalls are sometimes used for **hydroelectric power generation**, as the force with which the water falls, can be harnessed to produce electricity. In addition, they provide opportunities for recreation, such as trekking and photography, and often hold cultural or religious significance in certain regions.



1 River 2 Hard Rock 3 Gap 4 Plunge Pool 5 River

Fig. 2.10. Waterfall

Meander

A **meander** is a winding curve or bend in the middle or lower course of a river formed due to the lateral erosion and deposition

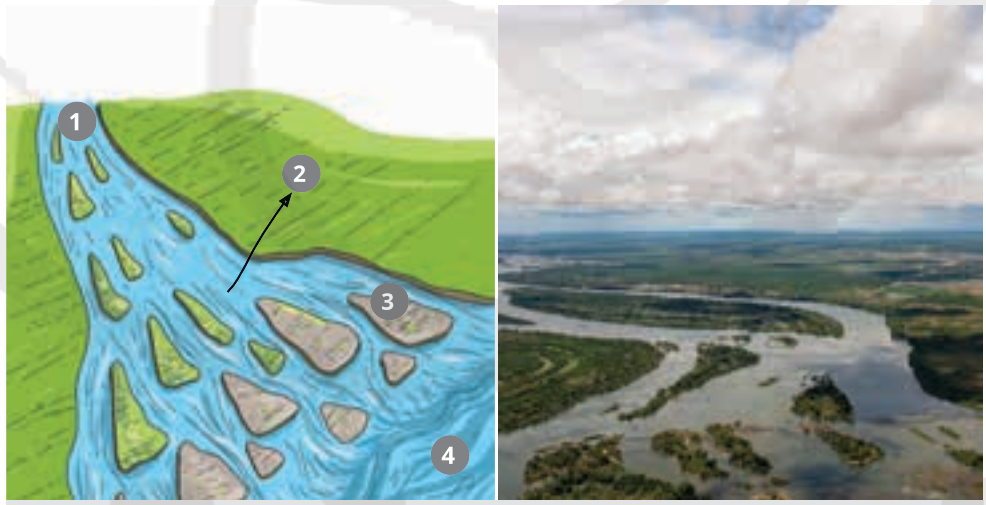
1 Oxbow lake 2 Steep Bank 3 River 4 Bar

Fig. 2.11. Meander

of sediments. As the river flows, it erodes the outer banks of bends and deposits sediment on the inner banks, gradually creating large loops. Meanders are important for humans because the fertile soil deposited along their banks supports agriculture, making these areas ideal for farming. They also influence settlement patterns, as villages and towns often develop on the gentle slopes near meanders. In addition, meandering rivers can be used for navigation, irrigation, and, in some cases, tourism, as their scenic curves create attractive landscapes. The Grand Anicut, also known as Kallanai in Tamil Nadu, is an example of the use of rivers for irrigation.

Deltas

A **delta** is a landform formed at the mouth of a river, where it flows into a sea, ocean, or lake, and deposits the sediments it has carried from upstream. Over time, these deposits accumulate to form a fan-shaped or triangular area of land. Deltas are highly fertile due to their rich alluvial soil, making them ideal for agriculture and supporting crops, such as rice and jute. They are also important for fishing, as the mix of fresh and saltwater creates diverse aquatic life. Many deltas support dense human settlements and are centres of trade and transportation because rivers provide navigable routes. However, they can also be prone to flooding, which affects human life and activities.



1 River 2 Distributary 3 Islands/Bars 4 Sea

Fig. 2.12. Delta

LET'S EXPLORE

Have you heard about the Sundarbans delta? Try and explore its uniqueness and find out why it is popular with tourists.

Fig. 2.13. Sundarbans delta

Waves and Currents

Waves and currents are constantly moving over the oceanic surface. They work in coastal areas and reshape the land along the coastal zone. The action of waves and currents creates a range of landforms along the coastline, such as **beaches, sand bars, sea cliffs, sea caves, arches,** and **stacks**. You will learn more about waves and currents in Part 2 of this textbook.

A **beach** is a landform made up of sand, pebbles, or rocks along the shoreline of a sea, ocean, or lake, created by the deposition of sediments by waves. Beaches are constantly shaped by wave action, tides, and currents, which move and deposit materials along the coast. For humans, beaches are popular tourist destinations for relaxation, swimming, and recreation, which boosts the local economy. Beaches also provide fishing areas, and some coastal communities rely on them for collecting sand and shells. Additionally, beaches act as natural barriers against strong waves and coastal erosion, helping safeguard human settlements near the coast.

1 Beach 2 Bay 3 Sea 4 Headland 5 Sand bar 6 Free end 7 River

Fig. 2.14. Beach

Coastal erosion occurs when waves, tides, and currents wear away the land along the coast, creating unique landforms. Some common **landforms of coastal erosion** include **cliffs** (steep rock faces formed as waves undercut the base of the coast), **wave-cut platforms** (flat areas left behind as cliffs retreat), **caves** (formed when waves erode weak parts of the rock), **arches** (created when caves on opposite sides of a headland meet), and **stacks** (isolated pillars of rock left standing after the arches collapse). These landforms not only shape the coastal landscape but also influence human activities, as some areas are important for tourism, while others may need coastal protection to safeguard settlements.

1 Headland 2 Sea arch 3 Sea stack 4 High-tide level 5 Low-tide level

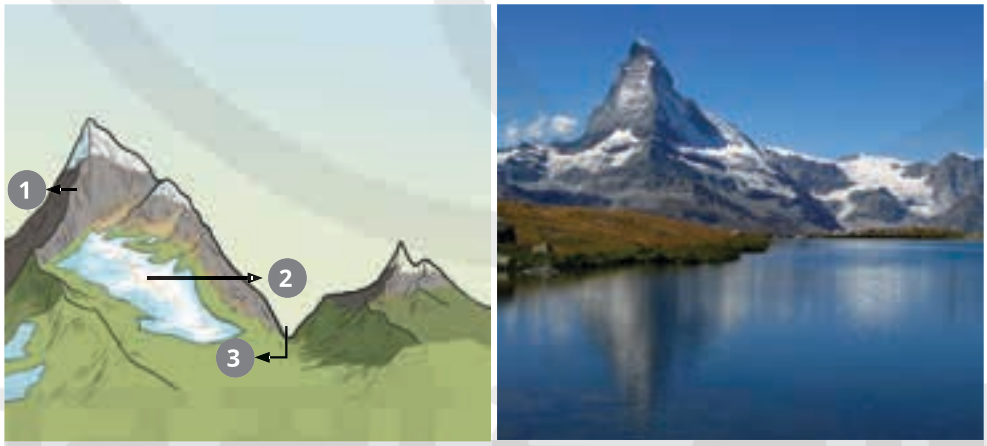
Fig. 2.15. Sea arch and sea stack

1 Headland 2 Sea cliff 3 Sea cave
4 High-tide level 5 Shore platform 6 Low-tide level

Fig. 2.16. Sea cliff and shore platform

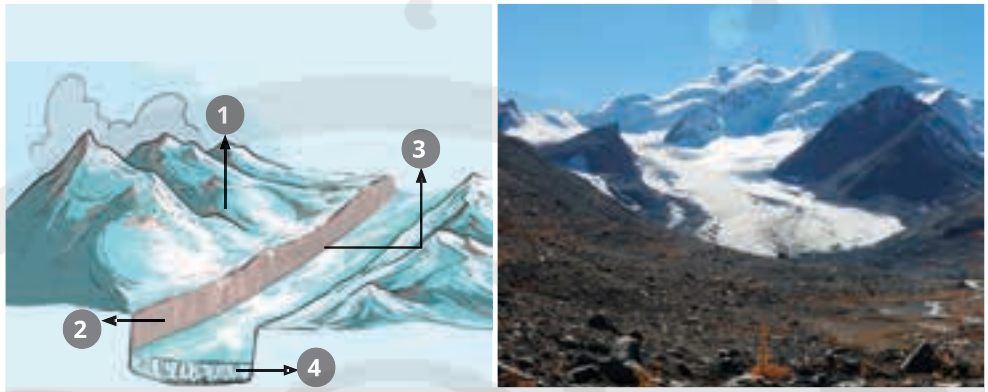
Glaciers

Glacial erosion occurs when glaciers slowly move over the land, carving and shaping the landscape. Common **landforms made from glacial erosion** include—**U-shaped valleys** (formed as glaciers widen and deepen river valleys), **cirques** (bowl-shaped depressions at the head of a glacier), **aretes** (sharp ridges between valleys), **hanging valleys** (which occur where smaller glaciers meet larger ones), and **fjords** (deep, narrow inlets created when the sea floods glacial valleys). These landforms are important for humans in several ways. U-shaped valleys and cirques often provide tourist attractions for trekking, skiing, and mountaineering. Fjords are used for harbours and fishing, while in some valleys the fertile glacial soil supports



1 Arete 2 Cirque 3 Pass

Fig. 2.17. Glacial landforms



1 Hanging Valley 2 U-shaped valley 3 Glacier 4 Glacial ice

Fig. 2.18. U-shaped valley

agriculture. Additionally, glaciers are crucial sources of fresh water, feeding rivers that sustain human populations downstream.

Moraines are landforms created by the deposition of rocks, soil, and debris (called **till**) carried along and left behind by glaciers. They are formed when a glacier melts and deposits the material it has eroded from land. There are different types of moraines — **lateral moraines** (which form along the sides of glaciers), **terminal moraines** (found at the end of glaciers, marking their furthest advance), and **medial moraines** (formed when two glaciers meet and their lateral moraines join in the middle). Moraines are important for humans because they often create fertile soil for agriculture and can form natural dams and lakes used for water supply, irrigation, and sometimes hydroelectric power.

1 Lateral 2 Glacier 3 Mid moraine 4 Glacier 5 Terminal moraine 6 River

Fig. 2.19. Moraines

THINK ABOUT IT

A devastating flood struck the Chamoli district in Uttarakhand in February 2021 in which many people and livestock lost their lives. There was severe damage to buildings, roads, bridges, and hydel projects, and connectivity to villages was adversely affected. Can you find out the reasons that led to the sudden and unexpected flood?

Fig. 2.20

Wind

Wind erosion occurs when strong winds pick up and carry away loose particles of sand and soil, gradually shaping the landscape. This process creates several distinctive **landforms**, such as **yardangs** (which are streamlined rock ridges carved by wind), **ventifacts** (which are rocks polished and shaped by sandblasting), **deflation**

1 Yardang 2 Wind 3 Hard rock 4 Soft rock 5 Hard rock

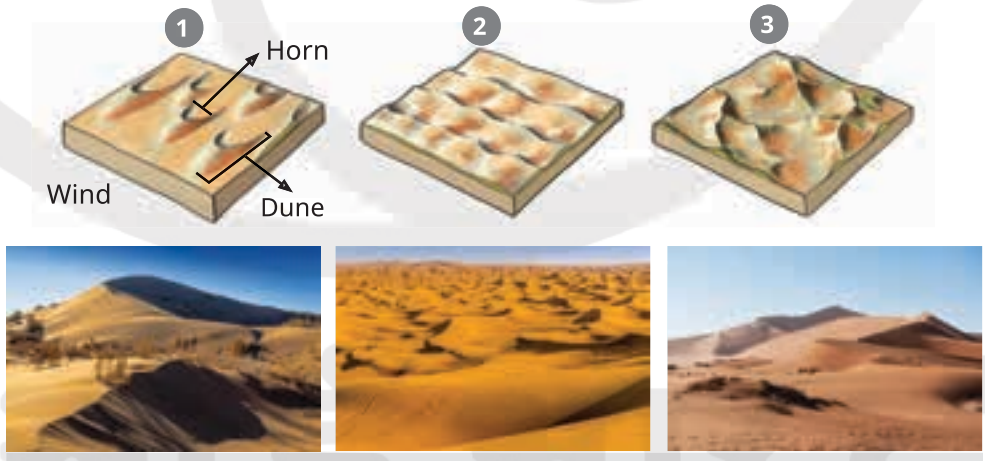
Fig. 2.21. Yardang

1 Wind 2 Oasis 3 Blown sand 4 Water table

Fig. 2.22. Oasis

hollows or **blowouts** (shallow depressions formed where loose material is removed), and **desert pavements** (flat surfaces left behind after finer particles are blown away). These landforms are important for humans as they influence **settlement patterns** and agriculture in arid regions, and ventifacts and yardangs attract **tourists and geologists** interested in unique desert landscapes.

Dunes are hills or ridges of sand formed by the wind in desert areas or along sandy coasts. There are several types of dunes, including **barchan dunes** (which are crescent-shaped and form in areas with limited sand and a single wind direction), **longitudinal dunes** (which are long ridges formed parallel to the prevailing wind), **star dunes** (which have multiple arms and form where winds come from different directions), and **parabolic dunes** (U-shaped dunes often



1 Barchan Dunes 2 Transverse Dunes 3 Star Dunes

Fig. 2.23. Dunes

stabilised by vegetation). For humans, dunes act as natural barriers against desertification and wind erosion, and provide areas for tourism and adventure sports. In some coastal regions, they protect settlements from strong sea winds and waves. In addition, sand from dunes is sometimes used for construction purposes.

Underground Water

Underground water, especially in areas of limestone or soluble rocks, creates unique landforms called Karst topography through **chemical weathering** and **erosion**. Common landforms of underground water include **caves** (hollow spaces formed as acidic water dissolves rock), **stalactites** (icicle-shaped formations hanging from the ceiling of caves), **stalagmites** (formations rising from the floor of caves), **sinkholes** or **dolines** (depressions formed when the

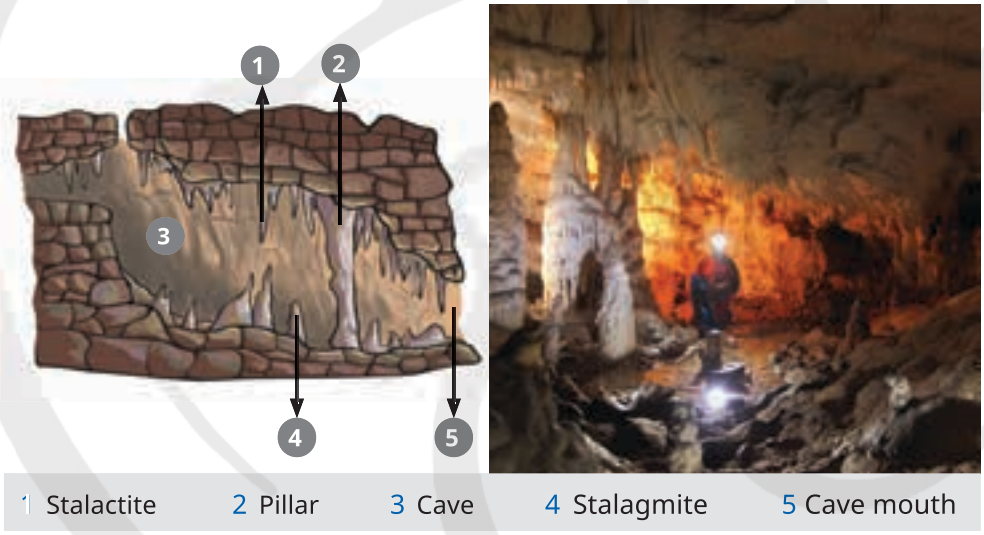


Fig. 2.24. Cave

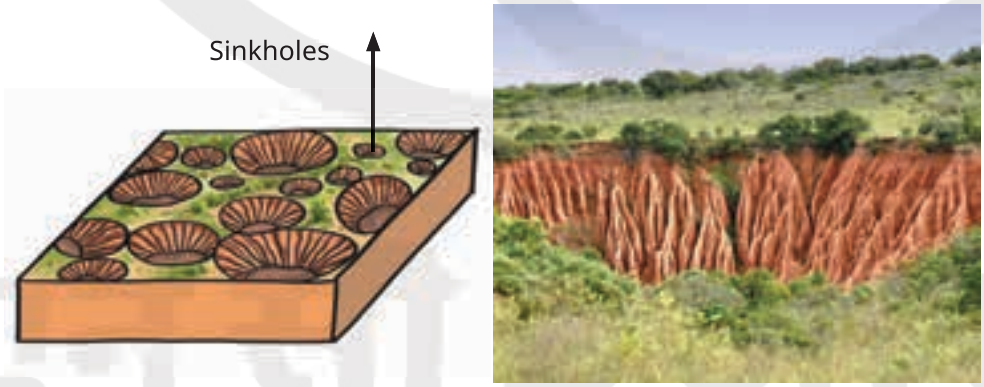


Fig. 2.25. Sinkholes

Fig. 2.26. Underground river

ground collapses into an underground cavity), and **underground rivers** (which flow through cave systems). These landforms are important for humans because caves and underground rivers provide sources of fresh water, tourism opportunities, and, in some cases, cultural, or religious significance. Stalagmites and stalactites also attract geologists and adventurers, making them valuable for both study and recreation.

LET'S EXPLORE

Observe the landforms around your school or residence and try to identify which agent may have created them.

Landforms and Disasters

There are several disasters associated with different landforms that commonly occur around us. Four such disasters are presented below:

LET'S EXPLORE

Complete the exercises given at the end of each type of disaster with the help of newspapers, atlases, and books. Make a list of disaster-prone areas from India and the world and enlist mitigation measures quoting recent examples.

Landslides

Landslides are caused by a combination of natural and human factors that make slopes unstable. Heavy and continuous rainfall is one of the main natural causes, as water seeps into the soil and rocks, increasing their weight and reducing friction. Earthquakes and volcanic eruptions can also trigger landslides by shaking the ground and weakening slopes. Steep slopes and the presence of loose or weathered rocks further increase the risk. Human activities, such as deforestation, mining, road construction, and unplanned construction on hillsides disturb the natural balance of slopes. Poor drainage systems and improper land use also contribute to landslides by allowing excess water to accumulate, leading to sudden slope failure.

Fig. 2.27. A landslide

Prone areas:

Mitigation measures:

Recent examples:

Avalanches

Avalanches are caused by the sudden instability of snow on steep mountain slopes. Heavy snowfall within a short period adds extra weight to the snowpack, making it unstable, especially when it rests on weak or loosely bonded layers of snow. A sudden rise in temperature can cause partial melting, reducing the friction that holds the snow together. Strong winds may also pile up snow unevenly, creating fragile layers. Natural disturbances, such as earthquakes and vibrations, as well as human activities like skiing, trekking, or construction in mountainous areas, can trigger avalanches by disturbing the balance of the snow-covered slopes.

Fig. 2.28. An avalanche

Prone areas:

Mitigation measures:

Recent examples:

GLOFs

Glacial Lake Outburst Floods (GLOFs) are caused by the sudden release of large volumes of water from glacial lakes due to natural and climatic factors. Rapid melting of glaciers because of rising temperatures increases the size and water level of glacial lakes, putting pressure on their natural dams made of ice or loose moraines. Heavy rainfall or intense snowfall can add excess water to these lakes. Earthquakes, avalanches, or landslides may strike the lake or weaken the dam, leading to its sudden collapse. As a result, the stored water is released abruptly, causing destructive floods in downstream areas.

Fig. 2.29. A GLOF

Prone areas:

Mitigation measures:

Recent examples:

Dust Storms

Dust storms are caused by strong winds lifting large amounts of loose, dry soil and sand into the air. Prolonged drought and low rainfall dry out the soil, making it easier for wind to pick up the fine particles. Dust storms are common in desert and semi-arid regions where the soil is loose and dry. Sparse vegetation cover, often due to deforestation, overgrazing, or poor farming practices, also leaves the land exposed. Climate change and extreme weather conditions can further increase the frequency and intensity of dust storms.

Fig. 2.30. A dust storm

Prone areas:

Mitigation measures:

Recent examples:

The Earth's surface is constantly changing due to powerful forces working both inside and outside the planet. Internal forces, such as earthquakes, volcanic eruptions, folding, and faulting create mountains, valleys, and ocean basins, while external forces like weathering, erosion, and deposition slowly wear them down and reshape them. Together, these natural processes give rise to the diverse landforms we see today, from the highest peaks to the deepest ocean floors. Human life, too, is deeply connected to these landforms, as it influences our climate, resources, settlements, and cultures. Understanding the shape of the Earth's surface helps us appreciate nature's power and prepare wisely for natural disasters, ensuring a safer and more sustainable relationship with our planet.

Before we move on...

- The Earth is made up of layers, namely, the crust, mantle, and core.
- Interior forces of the Earth (earthquakes, volcanoes, folding, and faulting) are responsible for the movement of the crust.
- External forces like weathering and erosion carve smaller landforms over the Earth's surface which affect human life in multiple ways.
- The surface of the Earth is carved by agents of gradation like running water, waves and tides, glaciers, wind, and underground water.
- Disasters like landslides, avalanches, glacial lake outflows, and sandstorms are associated with specific landforms.

Questions and activities

1. What are the sources of energy that are required to cause movements associated with the internal forces of the Earth?
2. Relate various physiographic divisions you have studied in the earlier grades with various endogenic forces responsible for their origin.
3. Why and where do earthquakes occur frequently? Is it possible to predict earthquakes?
4. "Plate movements are responsible for the distribution of earthquakes and volcanoes." Explain.

5. Draw and label a diagram of a meander and a delta.
6. How are deforestation and erosion associated with each other? Explain.
7. Develop a plan to protect the land in your local area from erosion.
8. Which disasters do you think you might experience in your region? Discuss a mitigation plan in your classroom.
9. Prepare a model of landforms created by underground water.
10. What precautionary measures will you take if you are staying in an earthquake-prone region?
11. Prepare a map showing landform-associated disasters that happened in the current calendar year.
12. Create a poster showing landforms that are considered to be sacred or important in your region, and add the folk stories associated with them.
13. Document a case of a disaster that hit your region in the past, highlighting its effects on various human activities.
14. Translate the given poster on landslide into your native language and display it in your home.
15. Divide the class into three groups. Each group will work on one project (water, wind, and glacier). The project should highlight the causes, impact on human life and the environment, and mitigation measures.

Chapter 3

Atmosphere and Climate

The Big Questions

1. *What is the composition of the atmosphere?*
2. *How do the different layers of the atmosphere affect the planet Earth?*
3. *What is the mechanism of monsoon?*
4. *How can we reduce our carbon footprint?*

What do you see when you look up in the sky? You might see the floating clouds, the sunshine, and feel a breeze as well. All of these are a result of a blanket of air surrounding the Earth, called the atmosphere. It is pulled down around the Earth by **gravity**, and is a mixture of gases in various proportions, vital for the survival of all living beings on the Earth. The atmosphere shields us from the harmful radiation coming from the Sun, including ultraviolet radiation. It regulates the Earth's temperature by trapping some of the Sun's energy and prevents it from escaping back into space. The atmosphere is a key component of the Earth's weather and climate systems, influencing factors such as temperature, humidity, and air pressure.

Gravity: Gravity is a fundamental physical force of attraction between objects that have mass or energy such as the Sun and the Earth. The force of attraction that the Earth's mass exerts on the objects that are on or close to its surface is referred to as Earth's gravity.

THINK ABOUT IT

Fig. 3.1

Can you imagine what would happen if there were no atmosphere? Discuss your thoughts with your friends and teachers.

Composition and Structure of the Atmosphere

Composition of the Atmosphere

The Earth's atmosphere is composed of a mixture of various gases. Nitrogen and oxygen are the two primary and most abundant gases that are essential to life on the Earth. Carbon dioxide, argon, helium, neon, krypton, xenon, ozone, and hydrogen are some other gases present in the atmosphere, but are found in lesser quantities. Besides these, the atmosphere also consists of water vapour and tiny dust particles. The amount of water vapour in the atmosphere varies, but it generally ranges from 0.1 per cent to 0.4 per cent. It plays a significant role in cloud formation and precipitation. The composition of the atmosphere also varies with altitude.

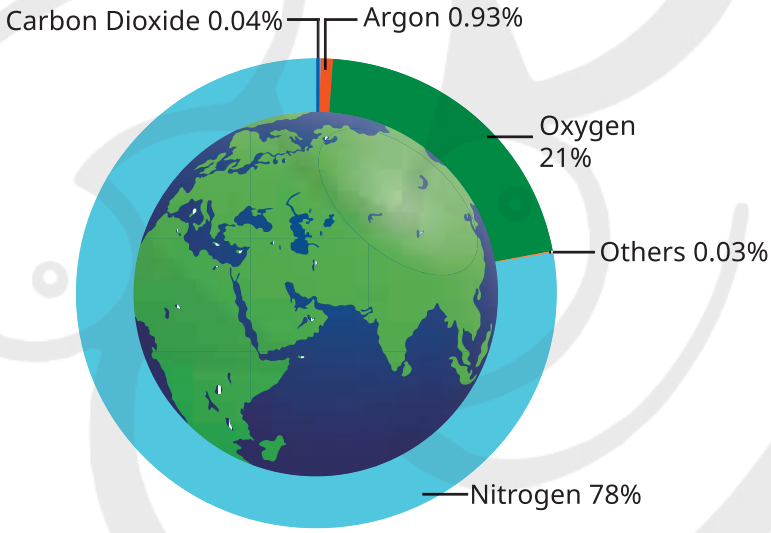


Fig. 3.2. Composition of the atmosphere

LET'S RECALL

How is nitrogen useful for plants? Remember that you learnt this in the chapter 'The Invisible Living World: Beyond Our Naked Eyes', in your Grade 8 Science textbook.

Structure of the Atmosphere

The atmosphere has a layered structure. These layers are defined on the basis of changes in temperature and density with increasing altitude. The density of air is highest near the Earth's surface and

decreases with **altitude**. The major layers extending from the Earth's surface to outer space are illustrated below.

Altitude: The height of a location above mean sea level is called altitude, usually measured in metres or feet. The mean sea level is considered zero.

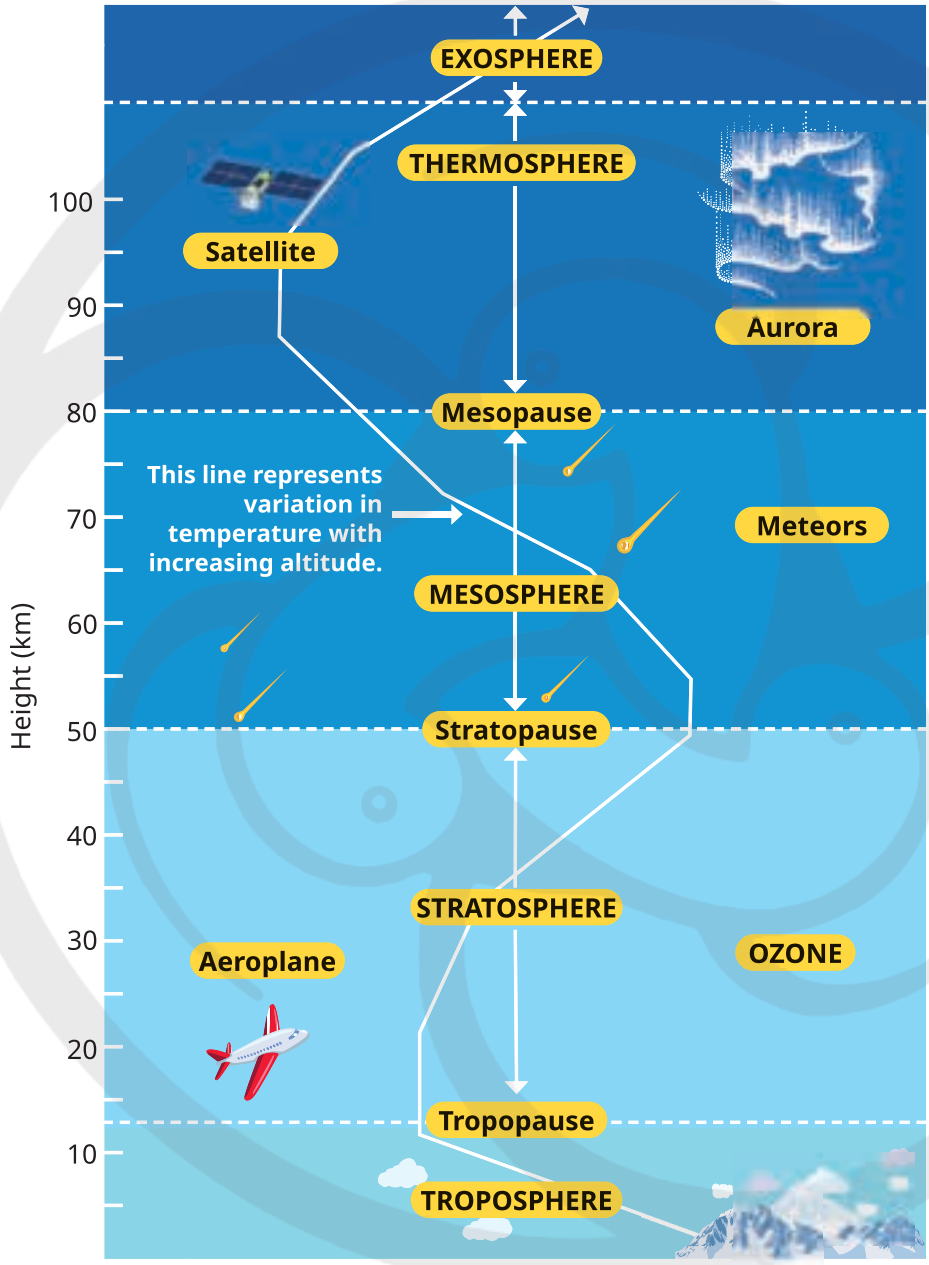


Fig. 3.3. Layers of the atmosphere

- **Troposphere:** The troposphere is the most important layer of the atmosphere, with an average height of about 12 kilometres. In this layer, temperature decreases with increasing altitude. The air we breathe exists here, along with most of the water vapour and clouds. Nearly all the weather phenomena, such as rainfall, fog, and hail, occur in this layer. The troposphere is separated from the stratosphere by a transition zone known as the tropopause.

- **Stratosphere:** Above the troposphere lies the stratosphere, extending up to 50 kilometres. This layer is ideal for flying aeroplanes because it is free of clouds and other weather disturbances. A notable feature of the stratosphere is that it contains a layer of ozone gas, which shields us by filtering the Sun's harmful radiation, including ultraviolet radiation. The stratopause marks the boundary between the stratosphere and the mesosphere.
- **Mesosphere:** Above the stratosphere lies the third layer of the atmosphere, the mesosphere. It extends up to a height of 80 kilometres. In this layer, temperature decreases with increasing altitude. Most meteorites entering from space burn up in the mesosphere.

DON'T MISS OUT

Temperature decreases with altitude only in the troposphere and mesosphere.

- **Thermosphere:** In the thermosphere, temperature rises very rapidly with increasing altitude, as the gas molecules in this layer absorb the X-rays and short-wave ultraviolet radiation of the Sun. The thermosphere extends from 80 to 700 km. It also helps with radio transmission by reflecting radio waves transmitted from the Earth back towards it. Ionosphere is a part of the thermosphere. Additionally, the northern and southern lights (**auroras**) also occur in the thermosphere.

Fig. 3.4: Aurora

The word 'aurora' originates from Latin, meaning 'dawn' or 'morning light.' It is named after the Roman goddess Aurora, the goddess of dawn , and refers to the colourful display of light seen in the sky near the poles. The 'solar wind' (charged particles emitted by the Sun), upon reaching the Earth's atmosphere, is directed towards the magnetic poles. As these particles interact with different atmospheric gases, each gas glows with a particular colour. This phenomenon is known as the Aurora Borealis in the Northern Hemisphere and the Aurora Australis in the Southern Hemisphere.

- **Exosphere:** The uppermost layer of the atmosphere is known as the exosphere, characterised by very thin air. Light gases like helium and hydrogen float into space from this layer due to weak gravity. All of these layers play a vital role in the Earth's atmospheric processes and also affect its weather and climate.

DON'T MISS OUT

The air above us exerts a significant force on our bodies, and yet we do not feel it. This is because air presses on us from all sides, and our bodies exert a counter-pressure in response.

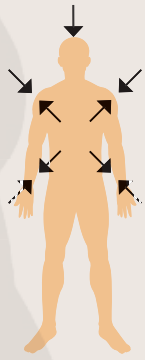


Fig. 3.5. The pressure inside our bodies is also equal to the atmospheric pressure and cancels the pressure from outside.

Weather and Climate

'Is it going to rain today?' 'Will it be bright and sunny today?' How often do you find yourself wondering about these questions when you want to go out and play?

The term **weather** refers to the hour-to-hour and day-to-day conditions of the atmosphere. Hot or humid weather may make one irritable, while pleasant or breezy weather may make one cheerful, or even plan for an outing. Weather can vary significantly from day-to-day. The average weather conditions of a place over a longer period of time refer to the **climate** of the place. Climate refers to the sum total of weather conditions and variations over a large area for an extended period of time, usually thirty years or more.

Elements of Weather and Climate

Various elements influence weather and climate. The major elements of atmosphere that impact human life on the Earth are temperature, precipitation, humidity, wind, and atmospheric pressure. These elements can change under varying conditions.

- **Temperature:** The temperature of the atmosphere varies not only between day and night but also across seasons, just as summers tend to be hotter than winters. An important factor affecting temperature distribution is **insolation**. The amount of

Insolation: The incoming solar energy from the Sun that is intercepted by the Earth.

insolation decreases from the equator towards the poles. Hence, the temperature decreases from the equator towards the poles.

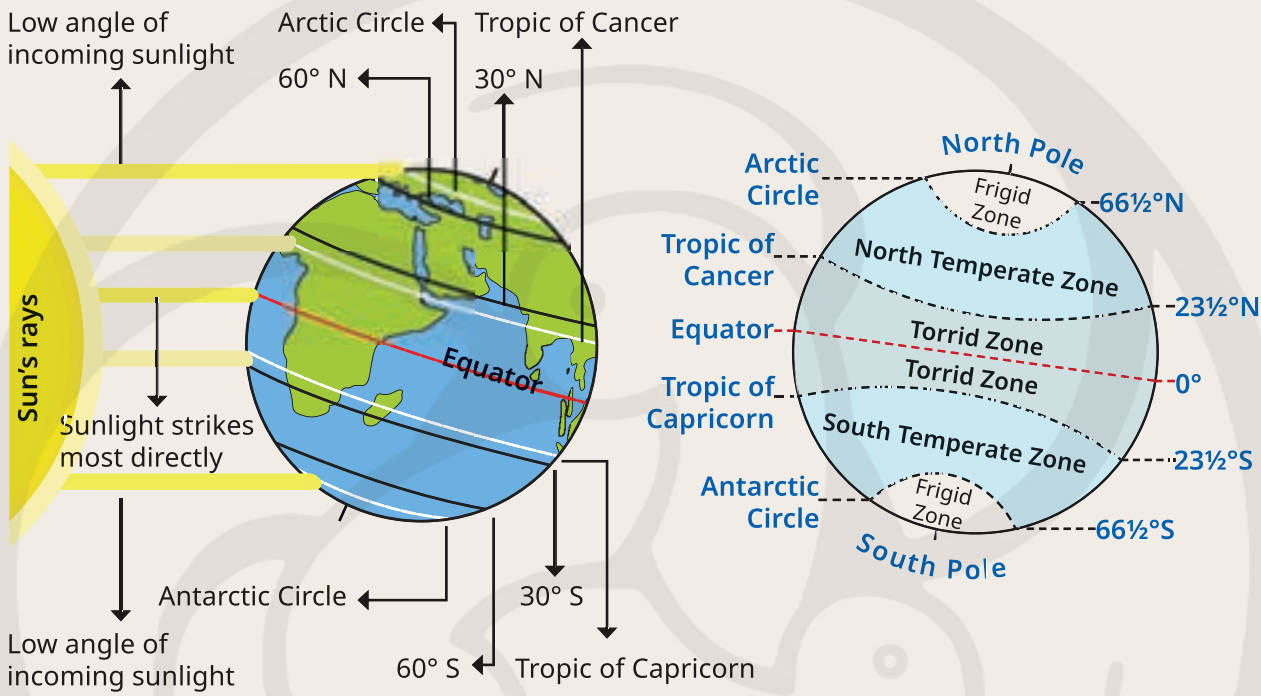


Fig. 3.6. Temperature zones of the Earth

- **Humidity:** When water evaporates from land and different water bodies, it becomes water vapour. When the levels of water vapour in the air are high, it leads to humidity. Therefore, humidity refers to the presence of water vapour in the air, creating moisture. As the air gets warmer, its capacity to hold water vapour increases, leading to higher humidity levels. On such a day, clothes take longer to dry, and sweat evaporates more slowly, leaving us feeling very uncomfortable.
- **Precipitation:** It occurs when a part of the atmosphere becomes saturated with water vapour, which condenses and 'precipitates', or falls on the Earth due to gravity. This includes drizzle, rain, snow, sleet, and hail. The main factors that affect precipitation include prevailing winds, mountains, and seasons. When precipitation falls on the the Earth in liquid form, it is called rain. Rain is the most common form of precipitation and lowers the temperature of a place. A long absence of rainfall results in a dry climate. Most of the groundwater is collected from rainwater.

- **Atmospheric pressure:** The pressure exerted by the weight of air on the the Earth's surface is called air pressure. As we go higher in the atmosphere, pressure falls rapidly. It is highest at sea level and decreases with altitude. Horizontally, the distribution of air pressure is influenced by the air's temperature at a given place. In areas with high temperatures, air heats up and rises. This creates a low-pressure area. Low pressure is associated with cloudy skies and wet weather. In areas with lower temperatures, air is cold. It is therefore heavy and sinks, creating a high-pressure area. High pressure is associated with clear and sunny skies. Air always moves from high-pressure areas to low-pressure areas. You can refer to Chapter 8 of the Grade 8 Science textbook *Curiosity* to learn more about this.

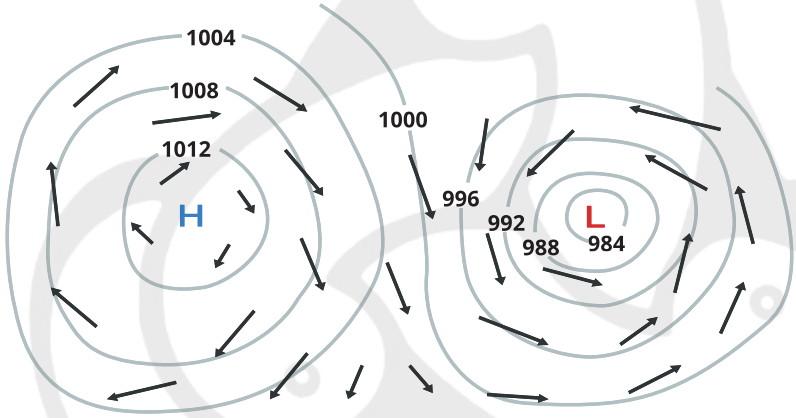


Fig. 3.7. Wind is caused by air flowing from high-pressure to low-pressure areas. Its direction is influenced by the Earth's rotation.

- **Wind:** The movement of air from a high-pressure area to a low-pressure area is called wind. It can be gentle or strong. You can observe the flow of wind as it blows dry leaves down the pavement, gently blows away dust particles, or uproots trees during a storm.

THINK ABOUT IT

You might have noticed that sometimes the wind is so strong that it is difficult to walk against it. Can you think of some other times when strong winds have caused problems for you?

DON'T MISS OUT

Winds are named after the direction they blow from, for example, the wind blowing from the west is called westerly.

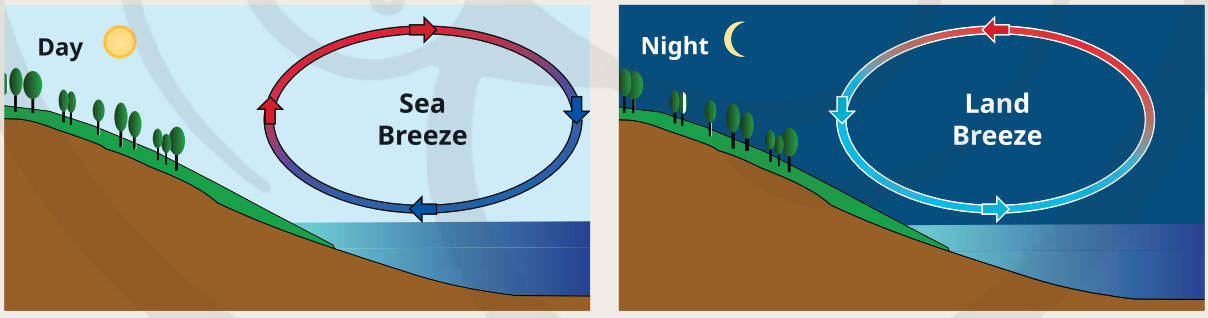
Wind	Speed (km/hr)	Common Effects
Calm	0–1	Calm, smoke rises vertically.
Light breeze	6–11	Wind can be felt on the face. Leaves rustle. An ordinary vane moves by winds.
Strong breeze	39–49	Large branches sway in the wind. Umbrellas are difficult to use.
Storm	103–117	It is very rarely experienced. Usually accompanied by widespread damage.

Table 3.1. Wind speeds and their common effects

LET'S EXPLORE

Find out other categories of wind based on speed and their common effects, and share your findings in class.

Local winds such as the land breeze and the sea breeze, also affect the weather and climate of a place. They are essential in creating moderate climatic conditions in the coastal region.



Land is warmer than the water *Water is warmer than the land*

Fig. 3.8. Land and sea breeze

Sea breeze

It is a local wind that blows from sea to land during the day, especially in the afternoon, when the land becomes relatively warmer than the sea. This results in the formation of a low-pressure region over land, and so the wind starts blowing from the sea.

Land breeze

It is a local wind that blows from land to sea during the night, resulting from differential surface cooling between the land and the sea. Land cools faster than sea at night. Since the difference in temperatures and air pressure between the sea and the land is low, the wind speed is low.

You may have observed that weather conditions often fluctuate, sometimes even within a single day. However, based on generalised monthly atmospheric conditions, or a common pattern over a few weeks or months—such as the days being cool or hot, windy or calm, cloudy or bright, and wet or dry—the year is divided into seasons.

LET'S ANALYSE

Note down the weather report from a local newspaper for two weeks and observe the changes occurring in the weather.

Seasons in India

The climate of India can be broadly classified as tropical monsoon. The Indian Meteorological Department (IMD) has recognised four distinct seasons in India:

- **Winter:** The winter season generally lasts from December to early April. The coldest months of the year are December and January, when the average temperature in the north-west is around 10–15°C. Temperatures increase towards the equator, reaching around 20–25°C in mainland India's south-east.
- **Summer or pre-monsoon:** The summer or pre-monsoon season spans from April to June, or up to July in north-western India. In western and southern regions, the hottest month is April; in northern regions, it is May. The average temperature across most of inland India ranges from 32–40°C.
- **Monsoon or rainy (Advancing monsoon):** The monsoon season generally spans from June to September. This season is dominated by the humid south-west summer monsoon, which slowly sweeps across the country in late May or early June. Monsoon rain begins to recede from north India at the beginning of October, and South India typically receives more rainfall during this time.
- **Post-monsoon (Retreating monsoon):** The post-monsoon season lasts from October to December. In north-western India, October and November are usually cloudless.

The Himalayan states, being more temperate, experience two additional seasons, autumn and spring.

DON'T MISS OUT

Traditionally, India experiences six seasons, each about two months long—spring, summer, monsoon, early autumn, late autumn, and winter. These seasons are based on the astronomical division of the 12 months into six parts. The traditional Indian calendar also reflects these seasons through its arrangement of months.

Seasons (*Ṛtu*)	Months (According to the Indian Calendar)	Months (According to the Gregorian Calendar)
Vasanta	*Chaitra–Vaiśhākha*	March–April
Grīṣhma	*Jyeṣhṭha–Āṣhāḍha*	May–June
Varṣhā	*Śhrāvaṇa–Bhādrapada*	July–August
Śharad	*Āśhvina–Kārtika*	September–October
Hemanta	*Mārgaśhīrṣha–Pauṣha*	November–December
Śhiśhira	*Māgha–Phālguna*	January–February

Table 3.2. Traditional Indian seasons. These seasons and their duration may vary across different parts of the country.

THINK ABOUT IT

Hindustani Classical music associates certain *rāgas* with specific seasons. Find out which *rāgas* are connected to each season with the help of your elders and teachers.

DON'T MISS OUT

Kauṭilya's *Arthaśhāstra* contains records of scientific measurements of rainfall and their practical application in managing the country's revenue and relief efforts.

Monsoon

The climate of India is strongly influenced by **monsoon** winds. The sailors who came to India during ancient times were among the first to notice the phenomenon of monsoon. They benefited from the reversal of the wind system as they travelled by sailing ships at the mercy of the winds. The Arabs, who had also come to India as traders, named this seasonal reversal of the wind system 'monsoon', derived from the Arabic word *mausim*, which literally means season.

Monsoon: It refers to the seasonal reversal in the wind direction during a year.

DON'T MISS OUT

Since crop production often depended on seasonal monsoon rains, Indians worked out methods to predict rainfall. *Kṛiṣhiparāśhara* and the *Bṛihatsaṁhitā* describe such methods in every season. *Kṛiṣhiparāśhara's* main technique was based on the positions of the Moon and the Sun in the sky. Varāhamihira in his *Bṛihatsaṁhitā* considered **lunar mansions (*nakṣhatras*)** in predicting seasonal rainfall. Even today, a large number of farming practices in India are based on these ancient methods.

Lunar Mansions (*nakṣhatras*): *Nakṣhatras* are a way of dividing the sky into 27 equal parts along the path the Moon travels. Each part is linked to a star or group of stars, but really it is just a fixed section of the sky. The Moon takes about 27 days to go around the Earth relative to the stars, so it moves through one *nakṣhatra* each day. That's why they are called "lunar mansions"—it's like the Moon stays in a different "house" in the sky every night.

Fig. 3.9. Arrival of monsoon in the Mountain

Monsoon winds are seasonal winds. They can be categorised into the south-west and the north-east monsoon. The south-west monsoon, also known as the summer monsoon, is characterised by winds blowing from sea to land across the Indian Ocean, the Arabian Sea, and the Bay of Bengal between June and September. It is mainly caused by the unequal heating of land and the sea. During summer, the landmass of India heats up faster than the surrounding oceans. This creates a low-pressure area over the Indian subcontinent, while the Indian Ocean remains relatively cooler and has high pressure. Winds move from high-pressure areas to low-pressure areas, so moist winds blow from the ocean towards the land, bringing rainfall. It accounts for most of the rainfall in the country throughout the year.

The winter monsoon, also known as the north-east monsoon, occurs in India from October to February. During this season, the Indian landmass cools faster than the surrounding oceans, creating a high-pressure area over the land and low pressure over the seas.

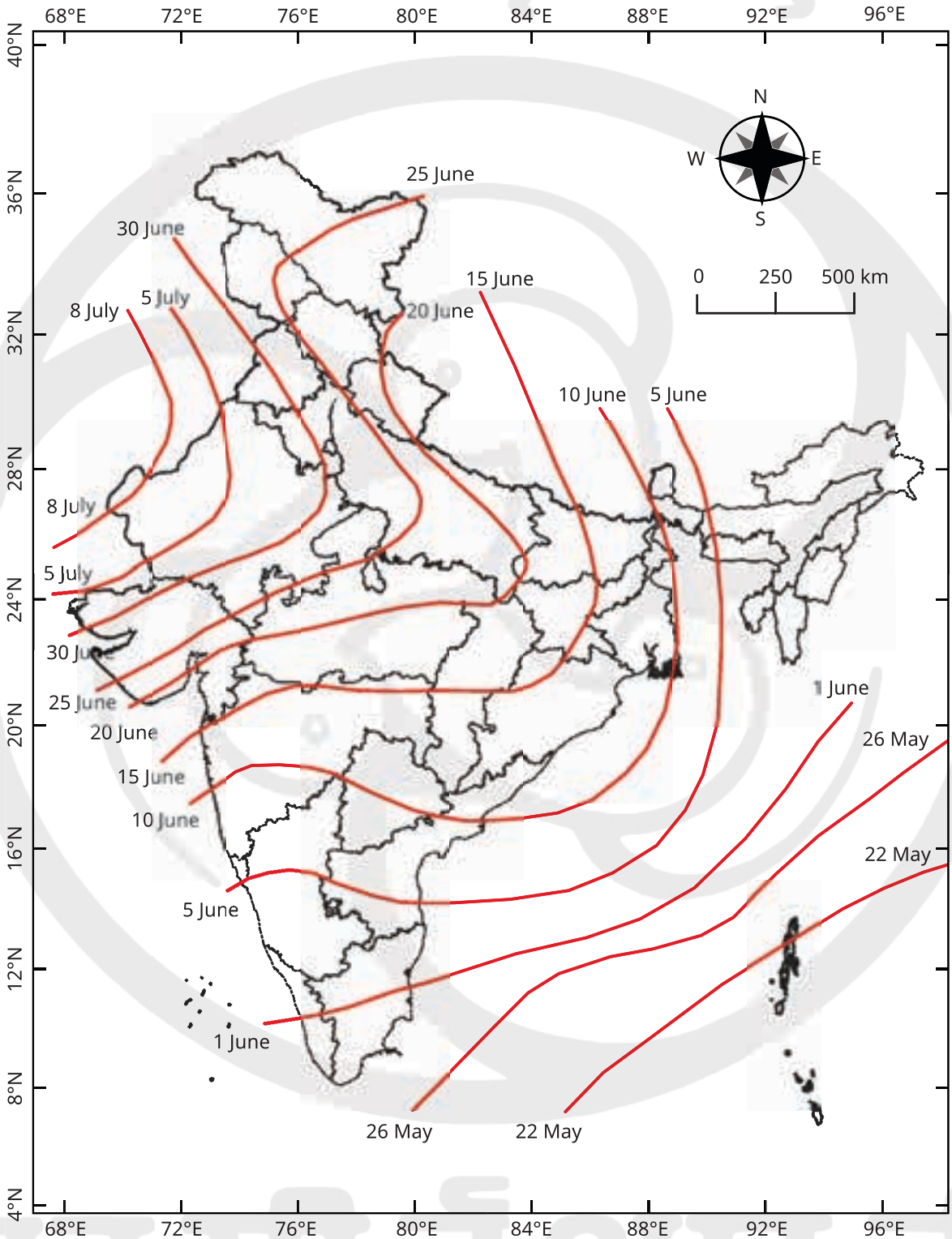


Fig. 3.10. Normal dates of advancing of south-west monsoon

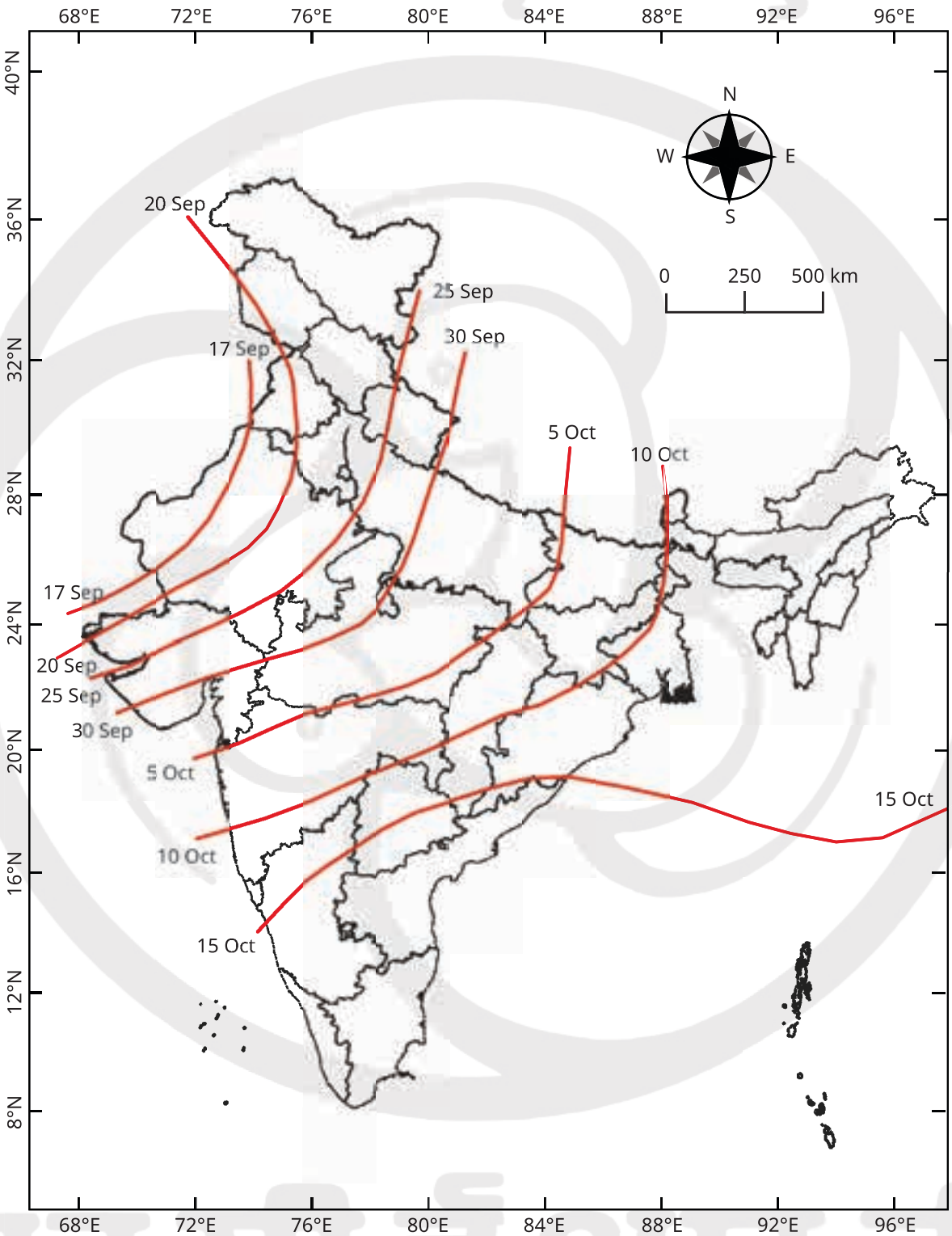


Fig. 3.11. Normal dates of retreating monsoon

As a result, cold and dry winds blow from land to sea. These winds generally do not bring rainfall to most parts of India. However, when the north-east monsoon winds pass over the Bay of Bengal, they pick up moisture and cause rainfall in the eastern coast of India, especially in Tamil Nadu, Andhra Pradesh, and parts of Karnataka. Thus, the winter monsoon is important for the rainfall of the south-eastern regions of India.

Monsoon plays a vital role in the lives of people in India. Most of India's agriculture depends on monsoon rainfall, as farmers rely on rain for sowing and growing crops. A good monsoon ensures sufficient food production and water supply in rivers, reservoirs, and wells. Monsoon also affects daily life, transport, festivals, and employment, especially in rural areas. However, excessive rainfall can cause floods, while weak monsoons can lead to droughts. Thus, monsoon greatly influences the economy, lifestyle, and livelihoods of people in India.

LET'S EXPLORE

Describe in your own words how monsoon affects the lives of the people around you.

DON'T MISS OUT

Under the National Monsoon Mission (NMM), Ministry of Earth Sciences (Government of India) has developed state-of-the-art weather and climate prediction models. The overall objective of the NMM is to enhance monsoon predictions for India over all time frames.

'Mission Mausam' is designed to position India as a global leader in weather and climate sciences. The mission aims to make the nation 'Weather Ready' and 'Climate Smart', meeting the global standards. It aims to improve weather and climate services, ensuring timely and precise observation, modelling, and forecasting information for multiple sectors, including agriculture, disaster management, and rural development.

DON'T MISS OUT

Kālidāsa, in *Meghadūtam* written around the 5th century CE, mentions the date of the onset of the monsoon over central India and also traces the path of monsoon clouds.

Climate Change

One of the most urgent challenges that the Earth is facing today is climate change. It refers to long-term changes in weather patterns, such as temperature, rainfall, and wind, caused mainly by human activities, including the burning of fossil fuels, deforestation, and industrial pollution that releases gases like carbon dioxide into the atmosphere. These actions increase greenhouse gases such as carbon dioxide, methane, nitrous oxide, water vapour in the atmosphere, trapping heat and raising global temperatures. As a result, we are witnessing more frequent floods, droughts, melting of glaciers, rising sea levels, and loss of biodiversity. Climate change not only threatens ecosystems but also impacts human health, agriculture, and livelihoods. You may recall that you have read about 'climate change' in your grade 8 Science textbook. What actions can be taken to reduce such changes? It also has great impact on almost all sections of the population including women and children. Tackling this issue requires collective efforts—reducing **carbon footprints**, using renewable energy, protecting forests, and adopting sustainable lifestyles. Every small step counts, and every human being plays a vital role in shaping a healthier and greener future.

LET'S EXPLORE

My Carbon Footprint

Step 1: My Daily Habits

Tick the options that best describe you.

A. Transport

- I usually walk/use a cycle. (Low impact)
- I use public transport/carpool. (Medium impact)
- I travel by private cars even for short distances. (High impact).
- I take flights more than twice a year. (Very high impact)

B. Electricity Use

- I always switch off electrical appliances (lights, fans, etc.) when not in use. (Low impact)
- I sometimes forget to switch off electrical appliances (lights, fans, etc.). (Medium impact)
- I leave electrical appliances (lights, fans, etc.) on frequently. (High impact)

C. Water Use

- I use water judiciously, for example, just one bucket of water for bathing. (Low impact)

Carbon footprint: The total amount of greenhouse gases released into the atmosphere as a result of human activities, such as energy use, transportation, or the production of goods and services.

- I sometimes waste water (leaving the tap running/ more buckets of water for a bath/long showers). (Medium impact)
- I rarely think about saving water. (High impact)

D. Waste and Plastics

- I reuse, recycle, and avoid single-use plastics. (Low impact)
- I sometimes use disposable plastics (bottles/bags/ straws). (Medium impact)
- I often throw away plastic and do not recycle. (High impact)

Step 2: Score Yourself

- **Low impact choices = 1 point**
- **Medium impact choices = 2 points**
- **High impact choices = 3 points**
- **Very high impact choices = 4 points**

Now add up your total score: _____ points

Step 3: My Climate Action Pledge

Think about **two simple changes** you can make to reduce your score, and write them down below.

1. ----------

2. ----------

Punjab Floods 2025: A Case Study

Fig. 3.12. Floods in Punjab

In 2025, Punjab experienced severe floods due to heavy monsoon rains and the consecutive swelling of the rivers Satluj, Beas, and Ravi. The floods damaged large parts of the state, including villages, agricultural fields, houses, and important infrastructure such as roads and bridges. While the water started to recede in some

places and relief operations were carried out, the overall impact was devastating. The state suffered heavy economic losses, social disruption, and environmental damage, underscoring the urgent need for improved flood management and preparedness.

Causes

The floods in Punjab resulted from both natural and human-made factors.

- **Natural Causes:** In 2025, Punjab faced very heavy monsoon rains, which were intensified by the western disturbances that brought even more moisture and rain. It rained not only in Punjab but also in Himachal Pradesh and Jammu & Kashmir. The major rivers of Punjab—the Satluj, the Beas, the Ravi, and the Ghaggar—were already flowing high before the heavy rains began. When additional rain fell, water from the hills and local rainfall caused rivers to overflow, leading to severe flooding in many parts of Punjab.
- **Human-made Causes:** The floods were further aggravated by weak and old river embankments, or *dhūsī bāndh*, which could not stop the rising water during heavy monsoon rains. People had also built houses and farms too close to the rivers, reducing the natural space where floodwater could spread safely. Over time, silt and mud had collected in rivers and dams, reducing their capacity to hold and carry water. In some areas, flood warnings came late or were not clearly communicated, leaving people unprepared. All these factors together increased the damage caused by the floods.

Fig. 3.13. Relief operations during the floods

Effects of the Floods in Punjab

- Many people lost their lives in the floods.
- Thousands of people had to leave their homes and move to relief camps for safety.
- Large areas of farmland were covered with water, and crops like paddy were severely damaged.
- Poultry and dairy farms were damaged and destroyed. Many animals, including cows, buffaloes, and chickens, got sick or died.
- Roads, bridges, border fences, and some public buildings were also damaged.
- Murky standing water caused health problems, including the spread of waterborne diseases and sanitation concerns.

Classroom Discussion

- To what extent did natural factors cause these floods compared to human activities?
- Do you think better planning could have reduced the damage? How?
- What are the guidelines for the management of floods according to the National Disaster Management Authority (NDMA)?
- What role can students/youth play in helping with disaster preparedness?

Before we move on...

- The Earth's atmosphere is made up of different gases, mainly nitrogen and oxygen, along with small amounts of other gases like water vapour and dust, support life and help in forming clouds and causing rainfall.
- The atmosphere is made up of different layers, namely the Troposphere, Stratosphere, Mesosphere, Thermosphere, and Exosphere, which are divided based on changes in temperature and air density as we go higher above the Earth's surface.
- Weather refers to the daily atmospheric conditions, while climate is the average weather of a place over a long period of time.
- India has a tropical monsoon climate, and the Indian Meteorological Department (IMD) divides the year into four main seasons, namely—Winter, Summer, Monsoon, and Post-monsoon.

- Climate change is the long-term change in weather caused mainly by human activities like burning fuels and cutting trees, which leads to global warming and extreme weather conditions.
- We can reduce our carbon footprint by saving energy, using renewable sources, planting trees, and living in more eco-friendly ways.

Questions and activities

1. What is atmosphere? Explain its composition with the help of a pie diagram.
2. Draw a labelled diagram of the structure of atmosphere.
3. Which are the four main seasons of India?
4. Why do you not feel the pressure of the atmosphere?
5. In which layer of the atmosphere do aeroplanes fly and why?
6. Distinguish between the following:
   a. The troposphere and stratosphere
   b. The south-west monsoon and north-east monsoon
7. Do it yourself: Table 3.3 shows the average monthly temperatures and rainfall amounts for 10 representative stations. Study these figures on your own and convert them into 'temperature and rainfall' graphs. The visual representations will help you grasp their similarities and differences at a glance. One such graph (Fig. 3.14) is already prepared for you. See if you can arrive at some broad generalisations about our diverse climatic conditions.
   7.1. Now look at Table 3.3 again. Re-arrange the 10 stations according to their distance from the equator.
   7.2 Find out:
      a. Two stations with the most extreme climate.
      b. Two stations influenced by retreating monsoons.
      c. The two hottest stations in the months of
         (i) February (ii) June
   7.3. Now find out:
      a. Why does Shillong experience more rainfall than Kolkata?
      b. Why does Delhi receive more rainfall than Jodhpur?

Stations	Latitude	Altitude (Metres)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual Rainfall
Temperature (°C) **Bengaluru**	12°58'N	909	20.5	22.7	25.2	27.1	26.7	24.2	23.0	23.0	23.1	22.9	18.9	20.2	
Rainfall (cm)			0.7	0.9	1.1	4.5	10.7	7.1	11.1	13.7	16.4	15.3	6.1	1.3	88.9
Temperature (°C) **Mumbai**	19°N	11	24.4	24.4	26.7	28.3	30.0	28.9	27.2	27.2	27.2	27.8	27.2	25.0	
Rainfall (cm)			0.2	0.2	–	–	1.8	50.6	61.0	36.9	26.9	4.8	1.0	–	183.4
Temperature (°C) **Kolkata**	22°34'N	6	19.6	22.0	27.1	30.1	30.4	29.9	28.9	28.7	28.9	27.6	23.4	19.7	
Rainfall (cm)			1.2	2.8	3.4	5.1	13.4	29.0	33.1	33.4	25.3	12.7	2.7	0.4	162.5
Temperature (°C) **Delhi**	29°N	219	14.4	16.7	23.3	30.0	33.3	33.3	30.0	29.4	28.9	25.6	19.4	15.6	
Rainfall (cm)			2.5	1.5	1.3	1.0	1.8	7.4	19.3	17.8	11.9	1.3	0.2	1.0	67.0
Temperature (°C) **Jodhpur**	26°18'N	224	16.8	19.2	26.6	29.8	33.3	33.9	31.3	29.0	20.1	27.0	20.1	14.9	
Rainfall			0.5	0.6	0.3	0.3	1.0	3.1	10.8	13.1	5.7	0.8	0.2	0.2	36.6
Temperature (°C) **Chennai**	13°4'N	7	24.5	25.7	27.7	30.4	33.0	32.5	31.0	30.2	29.8	28.0	25.9	24.7	
Rainfall (cm)			4.6	1.3	1.3	1.8	3.8	4.5	8.7	11.3	11.9	30.6	35.0	13.9	128.6
Temperature (°C) **Nagpur**	21°9'N	312	21.5	23.9	28.3	32.7	35.5	32.0	27.7	27.3	27.9	26.7	23.1	20.7	
Rainfall (cm)			1.1	2.3	1.7	1.6	2.1	22.2	37.6	28.6	18.5	5.5	2.0	1.0	124.2
Temperature (°C) **Shillong**	24°34'N	1461	9.8	11.3	15.9	18.5	19.2	20.5	21.1	20.9	20.0	17.2	13.3	10.4	
Rainfall (cm)			1.4	2.9	5.6	14.6	29.5	47.6	35.9	34.3	30.2	18.8	3.8	0.6	225.3
Temperature (°C) **Thiruvananthapuram**	8°29'N	61	26.7	27.3	28.3	28.7	28.6	26.6	26.2	26.2	26.5	26.7	26.6	26.5	
Rainfall (cm)			2.3	2.1	3.7	10.6	20.8	35.6	22.3	14.6	13.8	27.3	20.6	7.5	181.2
Temperature (°C) **Leh**	34°N	3506	–8.5	–7.2	–0.6	6.1	10.0	14.4	17.2	16.1	12.2	6.1	0.0	–5.6	
Rainfall (cm)			1.0	0.8	0.8	0.5	0.5	0.5	1.3	1.3	0.8	0.5	–	0.5	8.5

Table 3.3. Average monthly temperatures and rainfall for 10 representative stations (temperature and rainfall data are representational)

7.4. Now think why

a. Thiruvananthapuram has an equable climate?

b. Chennai has more rainfall only after the fury of the monsoon is over in most parts of the country?

c. Leh has moderate precipitation almost throughout the year?

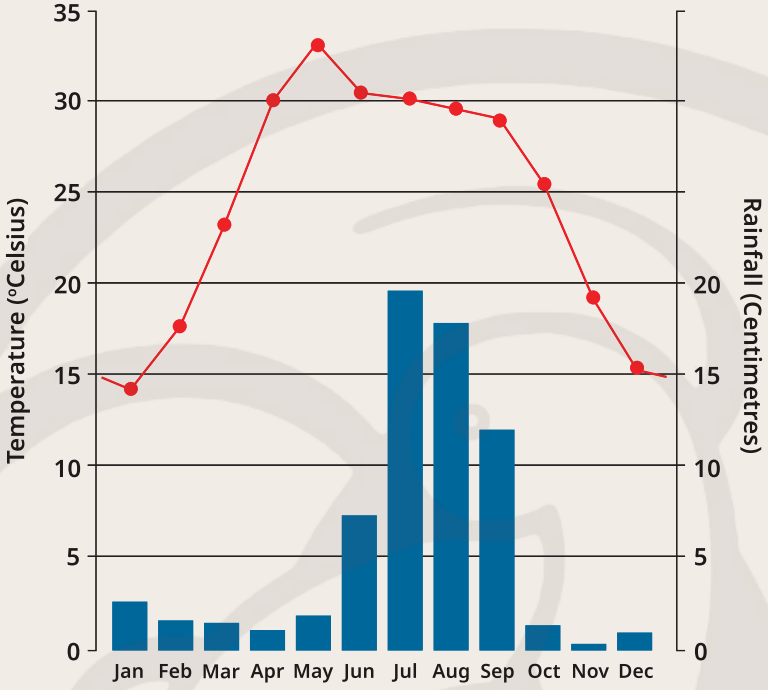


Fig. 3.14. Temperature and Rainfall of Delhi

7.5. Despite these differences across regions, can you observe any substantial evidence to conclude that the monsoons provide a very strong framework, lending overall climatic unity to the whole country?

8. Collect pictures of houses and clothing of people from different regions of India. Examine whether they reflect any relationship with the climatic conditions or the relief of those regions.

Notes

Chapter 4

Early Humans and Beginning of Civilisation

The Big Questions

1. *How did humans live on Earth before the beginning of civilisation?*
2. *How did humans communicate before writing was invented?*
3. *How is archaeology helpful in understanding our past?*
4. *How did early civilisations interact with each other?*

In previous grades, we have studied the history of various kingdoms and empires, and also learned about the Sindhu–Sarasvatī civilisation. However, the history of humanity goes back much further. In this chapter, we will explore who our earliest ancestors were, when and where they evolved, what kinds of food they ate, how they lived, and how they became what we are today.

The period before the development of writing is understood mainly through archaeological evidence, as written languages emerged at different times in different parts of the world.

One of the earliest known writing systems is associated with the Sindhu–Sarasvatī, also known as the Indus Valley Civilisation or the Harappan Civilisation. Writings and engravings found on objects such as seals and pottery, indicate that the Harappans used a pictographic script for writing. However, it has not yet been deciphered. As a result, we still do not understand the Harappan script, also referred to as *Sindhu lipi.*

Other early writing systems include the cuneiform script of the Sumerians in Mesopotamia and the hieroglyphic script of ancient Egypt, both of which flourished around the same time as the Harappan Civilisation. Unlike the Harappan script, these scripts have been deciphered and mark the beginning of the historical period, about 5000 years ago. You will learn more about them later in the chapter.

LET'S EXPLORE

Fig. 4.1: Harappan script on a seal

You have studied about the Harappan script in your previous grades. Observe this seal carefully and discuss why the script has not yet been deciphered. Also, find out what efforts have been made to decipher it. You can use your textbook, consult your teacher, or refer to online sources.

From about 400 BCE, a script known as *Brahmi* was used in parts of southern India and in the Ganga Valley (northern India). It was later formalised by the Emperor Aśhoka (3rd century BCE) and contemporary Iron Age people all over southern India. You will learn more about the journey of scripts in higher grades.

Fig. 4.2. Brahmi inscription on a railing around the stupa at Sanchi, Madhya Pradesh

The Invention of Writing: Before and After

	Before	After
Human History	More than 99 per cent of human history falls under this period (from about 3 million years ago to 5000 years ago).	Less than 1 per cent of human history falls under this period, the last 5000 years, including the present.
Main Source for Reconstruction	Tools, implements, and other material objects made by humans (artefacts) are the major sources for reconstructing people's ways of living.	Both material remains and written documents are sources for reconstructing the lives of people and society.
Lives of the People	It is generally difficult to understand the thoughts and ideas of people.	Literature (written documents) provides information about names; events; and social, political, and cultural life.
Measurement of Time	Measurement of time is approximate, that is, dating events and cultures is only approximate.	Dating of cultures and events becomes relatively accurate because written documents mention specific dates of events such as coronation, wars, etc.

Fig. 4.3

Why Should We Study Early Human History?

The study of early human history helps us understand the long process of humankind's biological and cultural evolution in relation to changes in climate and the environment.

Biological evolution refers to the gradual physical and genetic changes through which our early ancestors, known as *australopithecines* (*australis* means southern and *pithecus* is primates), evolved into modern human beings, called *Homo sapiens*.

Cultural evolution explains how humans adapted to their surroundings during the Quaternary Period (the last 26 lakh years, including the present). To survive the changing climatic and

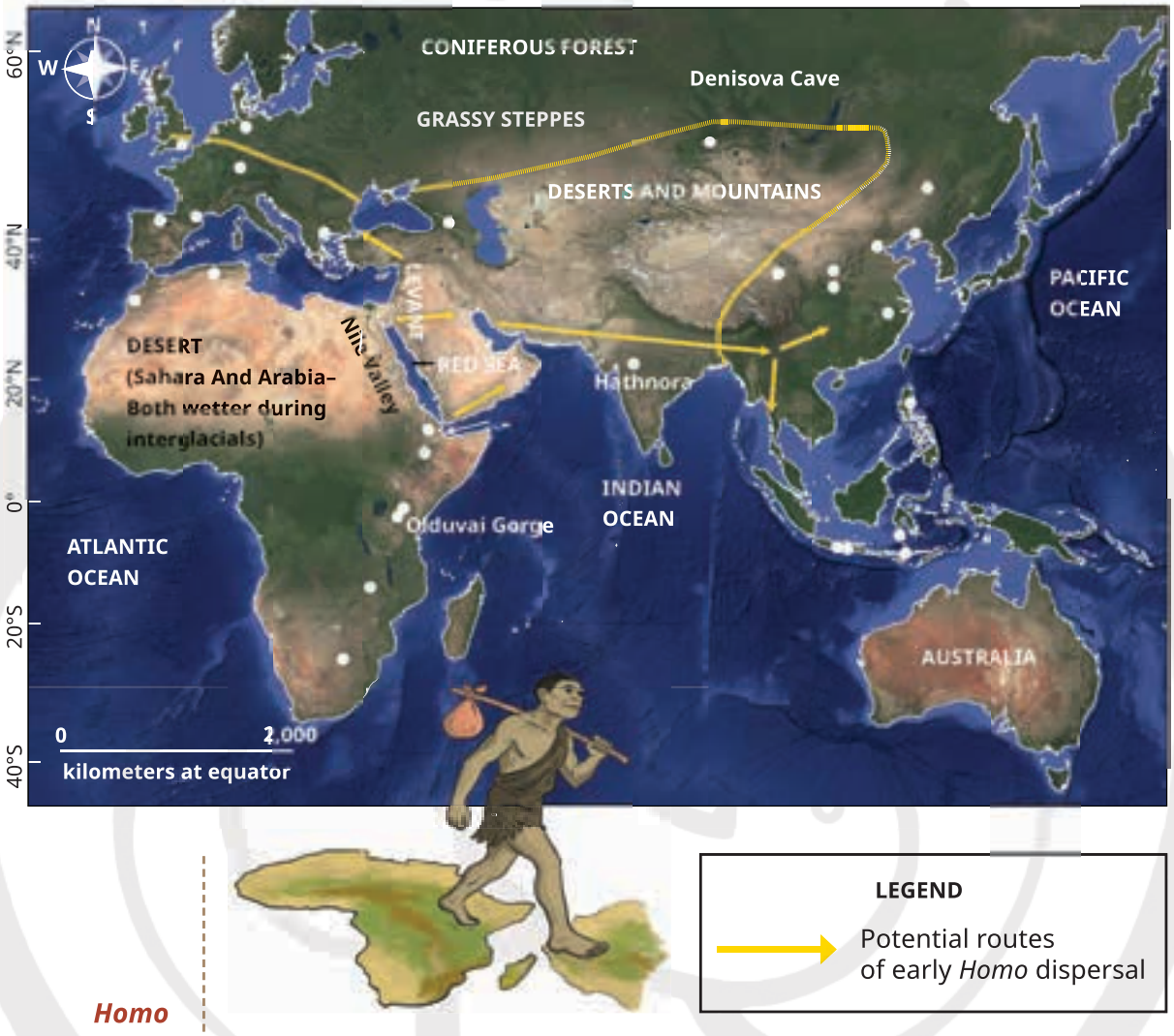


Fig. 4.4. Early dispersal of Homo erectus out of Africa (around 2 million years ago)

Homo erectus: *Homo erectus* refers to an upright or bipedal human ancestor.

Hominin: Hominins are a group that includes modern humans and our early human-like ancestors.

environmental conditions, humans developed tools, techniques, and other forms of technology to make use of natural resources.

Over time, human ways of life changed from hunting and gathering to agriculture and food production. The ability to produce surplus food and material goods laid the foundation for the emergence of civilisation.

It is generally agreed that our earliest ancestors evolved and lived in Africa and began to move out of the continent around 2 million years ago. ***Homo erectus***, an early human ancestor with stone tools, such as hand axes and cleavers, was the first **hominin** to exit Africa. These tools have been found in other parts of Asia and Europe, indicating their origin in Africa and their dispersion beyond the continent between 2 and 0.5 million years ago. Another major wave of movement out of Africa took place around 125,000 years ago. This

exit was associated with the early *Homo sapiens*, ourselves (modern humans), who also evolved in Africa around 300,000 years ago and are now spread all over the earth.

THINK ABOUT IT

Why do you think early humans left Africa to migrate to other regions?

How do we know about our ancestors?

Archaeologists explore early human sites to uncover clues such as tools, bones, and other objects left behind by our early ancestors. Each clue helps them build a picture of how people lived long ago.

To better understand these clues, archaeologists also experiment by making and using similar tools. This helps them learn how early humans created, used, and depended on these objects in their daily lives.

Fig. 4.5. An archaeological excavation in process

Who Were Our Human Ancestors?

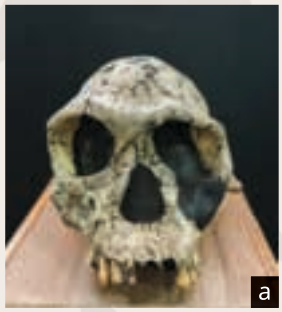
The earliest human settlements were found in Africa, Asia, and Europe, and together they constitute what we today call the '**Old World**'. Different kinds of human ancestors co-existed at this time (see Fig. 4.6), and it was around 3.3 million years ago, that one of these ancestors made the earliest stone tools. This marked the beginning of the so-called 'human behaviour', as opposed to the behaviour of animals, who do not possess the cognitive ability to make such tools. Thus, human beings came to be known as 'hominins', or tool makers. The tools they created are sometimes called extra-corporal limbs because they functioned as extensions of the human body, helping people perform tasks they could not accomplish with their hands alone. Humans made these tools, used them, and discarded them when they wore out. Over time, these discarded tools got

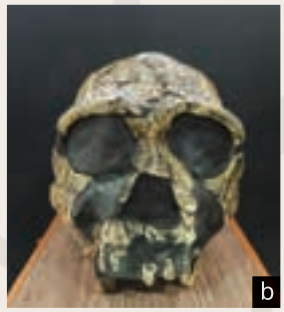
Old World: Geographical area of the oldest human settlements of the earliest palaeolithic period.

Fossil: The preserved remains, traces, or impressions of plants, animals, or humans from the distant past. Fossils form when these remains get buried under layers of earth and slowly turn into stone over thousands or millions of years.

buried in the upper layers of the earth and were later discovered by archaeologists. In the same way, the remains of some of our early ancestors were buried deep underground, and over thousands or even millions of years, turned into **fossils**. The discovery of such tools and fossils are major sources of evidence that helps archaeologists reconstruct human history and understand how our ancestors lived. It is through such findings that we know that the *Homo habilis* (handy man) lived in Africa, especially in the Olduvai Gorge in Tanzania and Kenya. As noted earlier, their successors *Homo erectus*, the inventors of handaxes and cleavers, were among the first to migrate out of Africa and gradually spread into Europe and Asia. While all human ancestors were tool makers, it was the *Homo sapiens* that developed complex technologies.

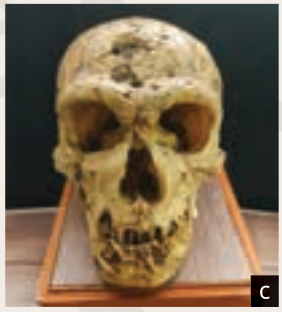
a. *Homo habilis* lived in Olduvai Gorge, Tanzania and Kenya, 2-6 million years ago; made chopper stone tools

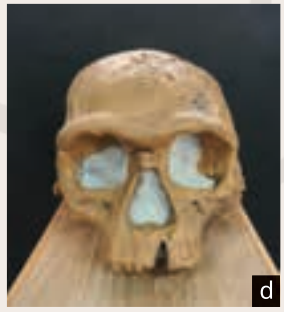




b. *Homo erectus* lived in the Eastern African Rift Valley 2 million years ago; made handaxes and cleavers.

c. *Homo neanderthalensis* lived in Europe and Southwest Asia till about 40000 years ago; made Middle Palaeolithic flake tools.





d. Living humans, or the *Homo sapiens*, are the only human species living today on earth.

Fig. 4.6. Skulls of early humans and modern humans showing the evolutionary sequence from Homo habilis to Homo sapiens

LET'S EXPLORE

Let us observe the images given above and answer the following questions.

→ Do you notice any changes in the shape or features of the skulls across different ancestors?

→ Can you observe a gradual straightening of the face?

Early human history is divided into distinct periods based on technological progress, such as the development and use of tools, the beginning of agriculture, and changes in human lifestyle and settlement patterns. We will explore these stages in this chapter.

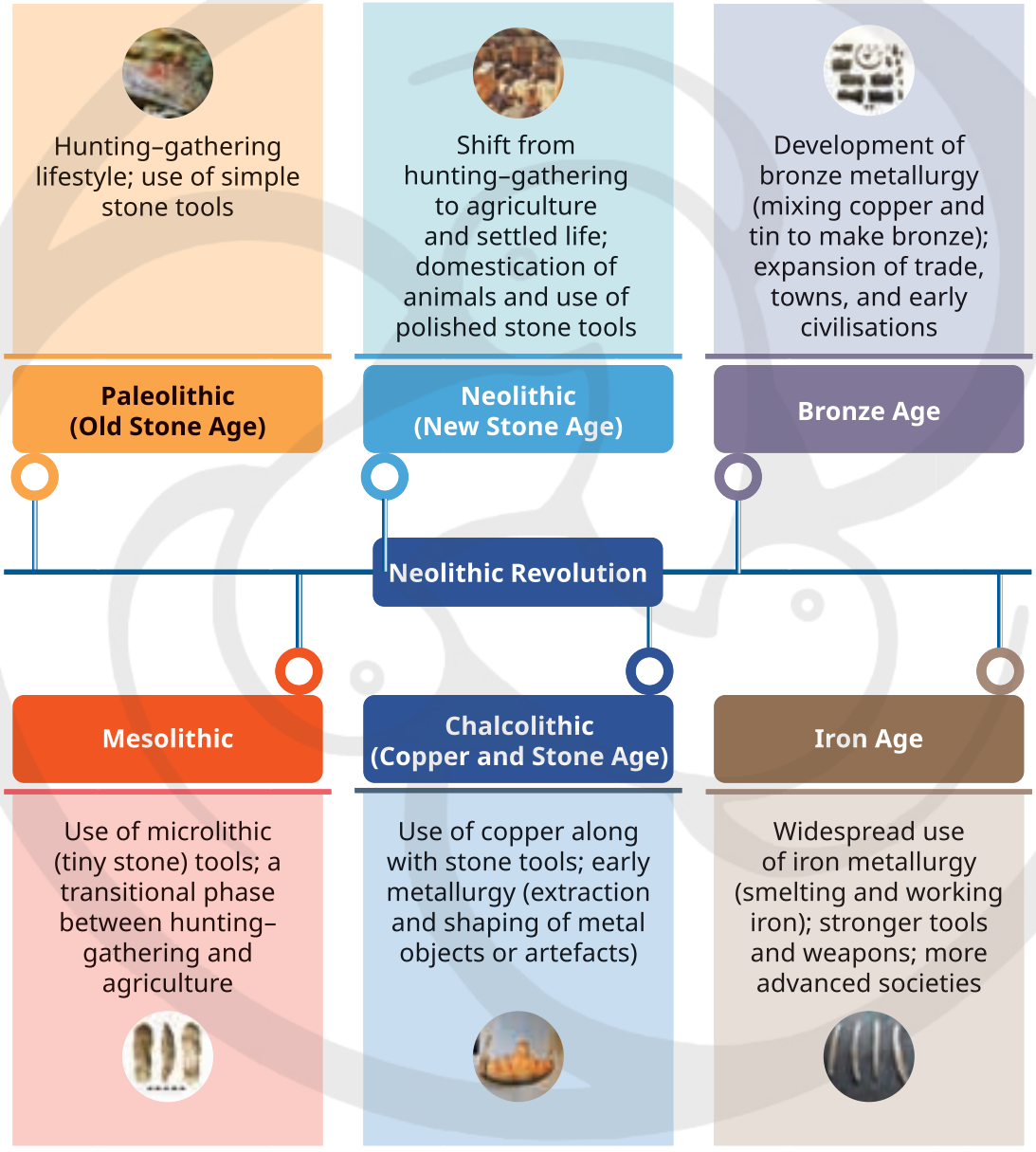


Fig. 4.7. Periods in Early Human History

THINK ABOUT IT

Why do you think the shift to farming during the Neolithic period is called a **revolution** rather than a simple change? Discuss with your classmates.

Palaeolithic Hunter–Gatherers

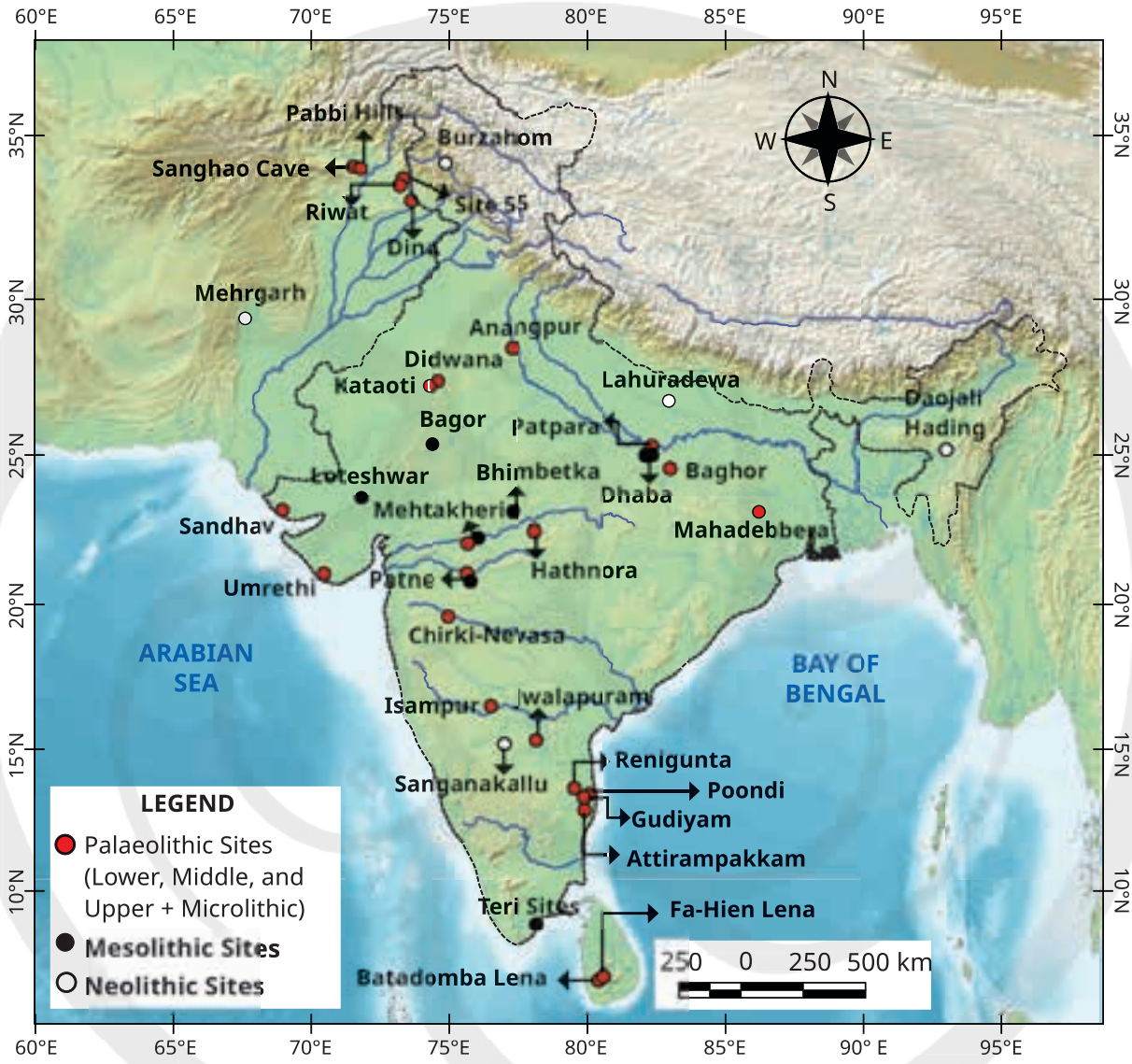


Fig. 4.8. Major early human sites in the Indian subcontinent

The Stone Age is broadly divided into three stages—Palaeolithic, Mesolithic, and Neolithic. The word *palaeo* means 'old', and *lithic* means 'stone', so the Palaeolithic period is also known as the Old Stone Age.

In the Indian subcontinent, the oldest human settlement dates back to about 2 million years ago. Attirampakkam in Tamil Nadu is dated to about 1.5–1.7 million years ago, and Isampur in Karnataka is dated to 1.2 million years ago. At these sites, animal fossils and large cutting tools, including handaxes and cleavers, and other tools, such as stone scrapers and choppers made of quartzite and limestone,

respectively, have been found. These tools were used to chop animal meat, dig out tubers, scrape animal skin, and cleave animal bones to extract protein-rich marrow.

Fig. 4.9. Cleavers and handaxe dating to about 1–5 million years in India

Further progress in hunting and gathering was reflected in the making of smaller stone tools. The main types of stone tools included scrapers, borers, and points. These indicate improved efficiency in hunting by developing projectiles which were tipped with sharp points.

Fig. 4.10. Middle Palaeolithic tools

Later, humans invented the bow and arrow, as well as parallel-sided blade and microblade tools made from rocks with glassy texture (very sharp when freshly made). They also hunted small game animals. Moreover, they developed symbolic communication, decorated the walls of caves and rock shelters with paintings, and used pigments to decorate their bodies. In addition, they were the first to produce beads of stone, bone, and shell.

Fig. 4.11a.


Fig. 4.11b.

Fig. 4.11a. and Fig. 4.11b. Microlithic tools and bone points

A distinctive type of stone tool, known as a burin or engraver, was also used to engrave symbolic features on bones and shells (such as ostrich eggs). The microblades were fixed in a handle for ease of use. These developments are associated with our immediate ancestors, *Homo sapiens*, who gradually spread all over the world, including Australia and the Americas, between 50000 and 12000 years ago.

Mesolithic Hunter–Gatherers

Fig. 4.12. Cave art from Bhimbetka, Madhya Pradesh

Around 12000 years ago, Earth's climate became warmer, leading to significant changes in the environment. Forests and grasslands expanded into areas that were previously covered by ice sheets. The new landscapes offered a wider variety of resources, including small game animals, fish, and edible wild grains. Thus, the world witnessed the first-ever population explosion in human history. A variety of microlithic tools enabled the people to gather aquatic food—both marine and freshwater—and fishing was the mainstay of their subsistence economy. Art activity also flourished during this time, and new habitats such as caves and rock shelters were frequently occupied. The World Heritage Site of Bhimbetka in Madhya Pradesh contains hundreds of painted rock shelters with Mesolithic and earlier human occupation.

The Neolithic Revolution

As hunter–gatherers gained adequate familiarity with seasons and different types of food resources, there was a gradual transition to a food-producing way of life, also known as the Neolithic revolution. The hallmark of this revolution was the domestication of select animals and plants, bringing them under human control, and the development of new breeds through cultivation and husbandry. While hunter–gatherers produced tools for procuring food, Neolithic farmers made tools for food production and processing (Fig. 4.13) and developed a variety of earthenware pottery in various shapes and sizes. They utilised several raw materials and resources and established the first village settlements, laying the foundations for the urban revolution.

Fig. 4.13. Neolithic stone tools

The chart (Fig. 4.14) illustrates the gradual shift from hunting and gathering to agricultural ways of life across different regions of the world. It also highlights that this transition did not occur at the same time everywhere, but took place at different periods in different areas.

THINK ABOUT IT

Observe the chart (Fig. 4.14) and identify the animals that were domesticated. Also try and identify the types of human habitats and objects that were used. Are any of these still used in present times?

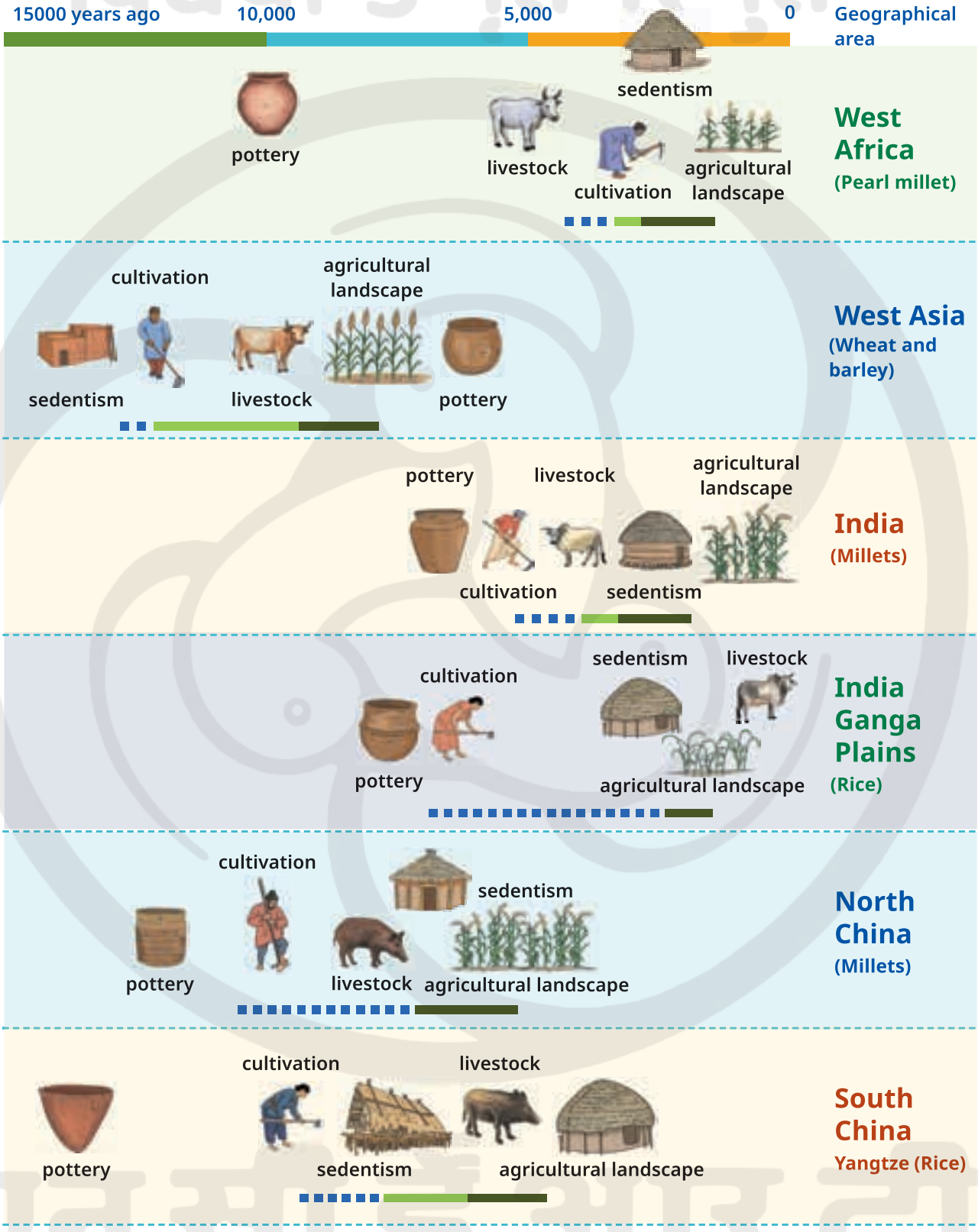


Fig. 4.14. Transition to the agricultural way of life in different parts of the world

Neolithic Period in Indian Subcontinent

In the Indian subcontinent, we find regional variation in the initiation of agricultural ways of life. In the northwest, the site of Mehrgarh on the Bolan River (in present-day Pakistan) is the oldest Neolithic site. It was also the earliest agricultural village, dating back to about 7000 BCE. Its people built handmade sun-dried brick houses and granaries, buried their dead in graves, and made a variety of ornaments from semi-precious stones, such as lapis lazuli, carnelian, and shells. They cultivated wheat and barley, and raised sheep, goats, and Indian cattle—the zebu humped bull in particular. They were also the first to make copper objects, thus entering the metal age and becoming popularly known as the Chalcolithic people by about 4000 BCE. This laid the basis for the Bronze Age Sindhu–Sarasvatī civilisation around 3500 BCE.

Fig. 4.15. Sanganakallu Neolithic site on top of a granite hill, dating 2000 BCE

Fig. 4.16. Mehrgarh on the Bolan river; layout and house structures

By 2500 BCE, most of the Indian subcontinent was occupied by Neolithic agricultural communities. Cattle, sheep, and goat herding, along with the cultivation of cereals, millets and pulses characterised the Neolithic way of life, sometimes interacting with the contemporary chalcolithic cultures in some parts of the country.

Sindhu–Sarasvatī Civilisation

In the previous section, you have seen how the Neolithic way of life that emerged around 7000 BCE at Mehrgarh in the foothills of Baluchistan, spread in the middle and upper Indus valley and further east. Some of these settlements mastered the extraction of copper from its ores around 4000 BCE, and became the earliest Chalcolithic sites in the subcontinent marking the beginning of the Bronze Age.

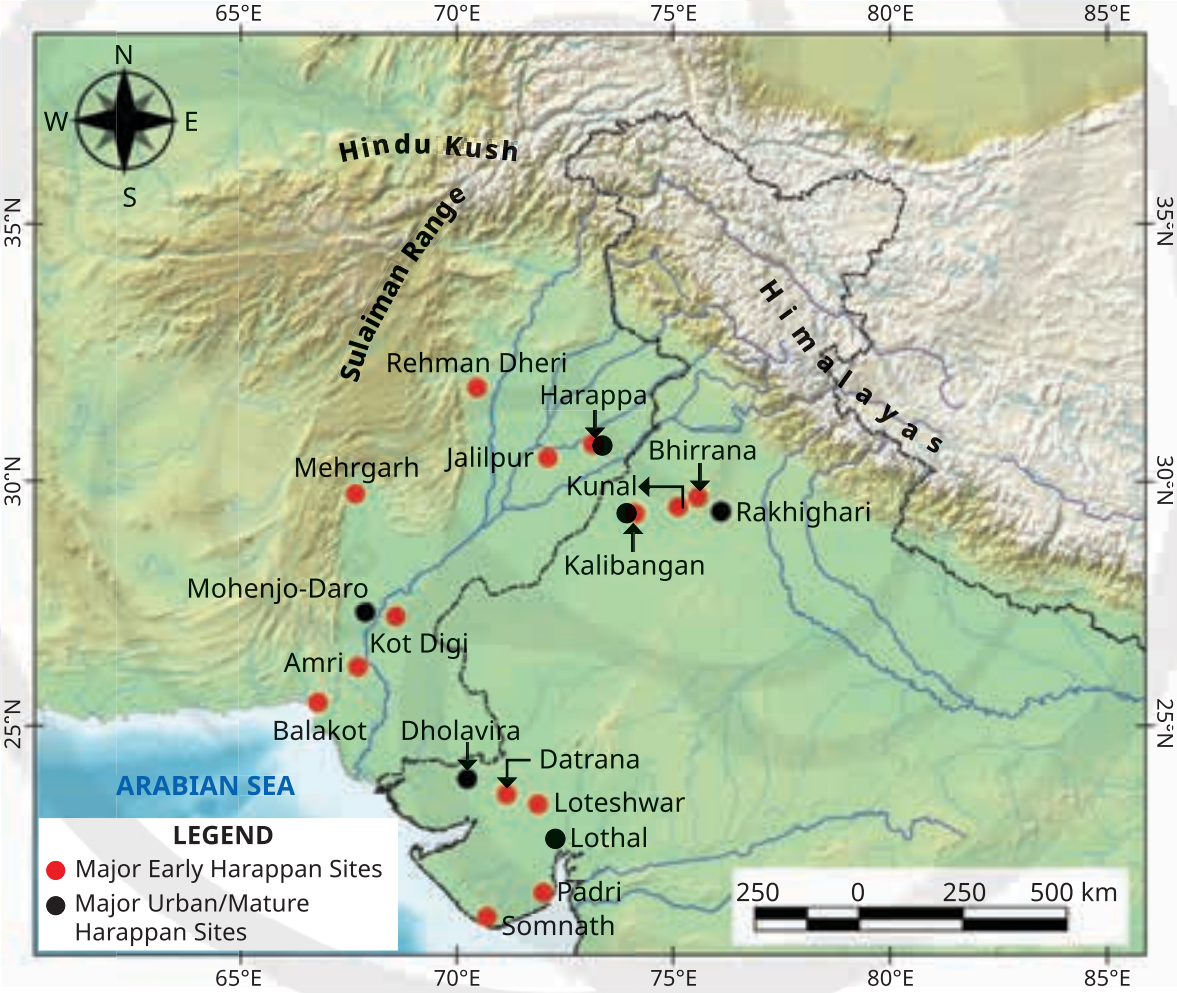


Fig. 4.17. Map showing some early and mature harappan sites

In this section, we will look at the early stages that led to the emergence of the civilisation by 2600 BCE.

Introduction of copper tools in the fertile alluvial plains of the Indus and the Ghaggar-Sarasvatī basins enhanced productivity, leading to increased prosperity in these communities. This is also a period of large-scale production of pottery showing diverse regional styles. The regional styles in pottery and craft production

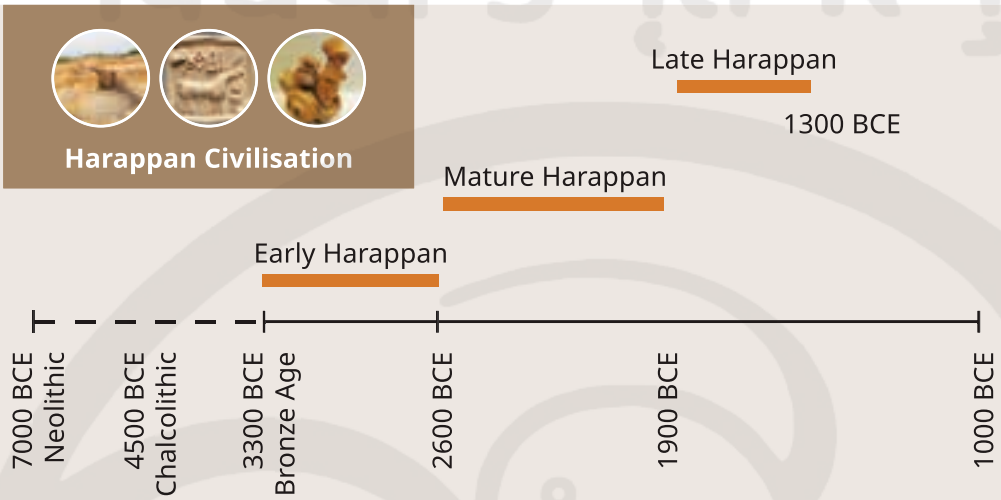


Fig. 4.18. Timeline showing Harappan Civilisation

became more evident in the early Chalcolithic sites of Baluchistan and the Indus and Ghaggar-Sarasvatī basins from 4000 BCE onwards. Some radio-carbon dates suggest that at some sites in the dried river belt of Sarasvati, such as at Bhirrana and Kunal, the Pre-Harappan phase began between 7000 and 5500 BCE. Many of these regional styles evolved over time and became standard features of the Sindhu–Sarasvatī civilisation by about 2500 BCE. Since these sites show a cultural continuity, this stage is generally described as Early Harappan. We see continuity in pottery traditions, semi-precious stone beads, shell bangles, terracotta objects, and copper working. Some other developments, such as building a perimeter wall around the settlement, the use of seals, and even the Harappan writings/script, probably had their beginnings in the Early Harappan stage.

The Harappans were not merely agriculturists; they also practised a number of arts and crafts, and pottery was one of the major craft products that boosted their economy. Pottery remains from different regions show unique styles in the shapes of vessels and their painted designs. Some other crafts that show gradual development include copper work, shell work, and the production of semi-precious stone beads. Evidence of Early Harappan bead production is found from Harappa in Pakistan as well as from Kunal in Haryana and Datrana in Gujarat.

Besides these, the extensive use of graffiti on pottery and a few seals with geometric and simple animal motifs reported from early Harappan sites like Harappa, Rehman Dheri, and Kunal could be seen as forerunners to the script and inscribed seals of the

Sindhu–Sarasvatī civilisation. It was these technological advancements and economic integration during the Early Harappan period that led to the emergence of the urban centres of the Harappan civilisation.

DON'T MISS OUT

A tradition nearly 5000 years old

The Early Harappans ploughed fields (Fig. 4.19) at Kalibangan showing horizontal and vertical furrows indicating double crop cultivation, like the seasonal Rabi and Kharif cultivation that is practised even today.

Fig. 4.19. Ploughed field, Kalibangan

THINK ABOUT IT

Fig. 4.20. Stone weights

Harappans had their own standard systems of weight and measurement. This is evident from the meticulously planned settlements and efficient interregional trade practices of the Harappans. They followed a binary multiple (1, 2, 4, 8, 16, etc.) system for weighing smaller units and used multiples of ten for larger denominations. Such cubical stone weights have been reported from several sites. Can you imagine how long-distance trade would have been affected had the Harappans not followed a standard system of weights?

Bronze Age Civilisations Outside India

In Grade 6, you studied the major features of the Harappan/ Sindhu–Sarasvatī civilisation, such as the well-planned urban cities, water management and drainage systems, standard weights and measures, stone beads, inscribed seals, and the script. In this section, we will explore the main features of other Bronze Age civilisations that were contemporary with the Harappans. These three major civilisations were the Mesopotamian, Egyptian, and the Chinese civilisations.

It is important to note that four early world civilisations emerged in river plains—the Harappan civilisation along the Sindhu and Sarasvatī rivers, the Mesopotamian civilisation in the region around the Euphrates and Tigris rivers in West Asia, the Egyptian civilisation along the Nile River, and the Chinese civilisation in the Huang He basin in northern China. Geographically, Mesopotamia and the Indus and Ghaggar-Sarasvatī valleys are closer to each other. This proximity facilitated strong contacts and trade between the Mesopotamian and Harappan civilisations. The Egyptian and the Chinese civilisations, on the other hand, have little tangible evidence of their direct contact with the Sindhu–Sarasvatī civilisation.

THINK ABOUT IT

Why were rivers important in the growth of early civilisations?

Mesopotamian Civilisation

Although the four civilisations were contemporaneous, the earliest city-based civilisation emerged in Mesopotamia. Mesopotamia, meaning the "land in between," is the Greek name for the land drained by the Euphrates and Tigris rivers in West Asia (Fig. 4.21). In modern times, this region includes mainly Iraq and Kuwait, with some parts of Turkey and southwestern Iran. The crescent-shaped foothills of the Zagros and Taurus, stretching from the Mediterranean in the west to the Persian Gulf in the east, are known as the 'fertile crescent', due to their high agricultural potential.

While farming began in this region 12000 years before present, copper tools arrived here around 4500 BCE. The arrival of copper helped improve agriculture and other economic activities, such as craft production and trade. This eventually contributed to the broader dissemination of farming across the vast plains of the Euphrates and Tigris rivers.

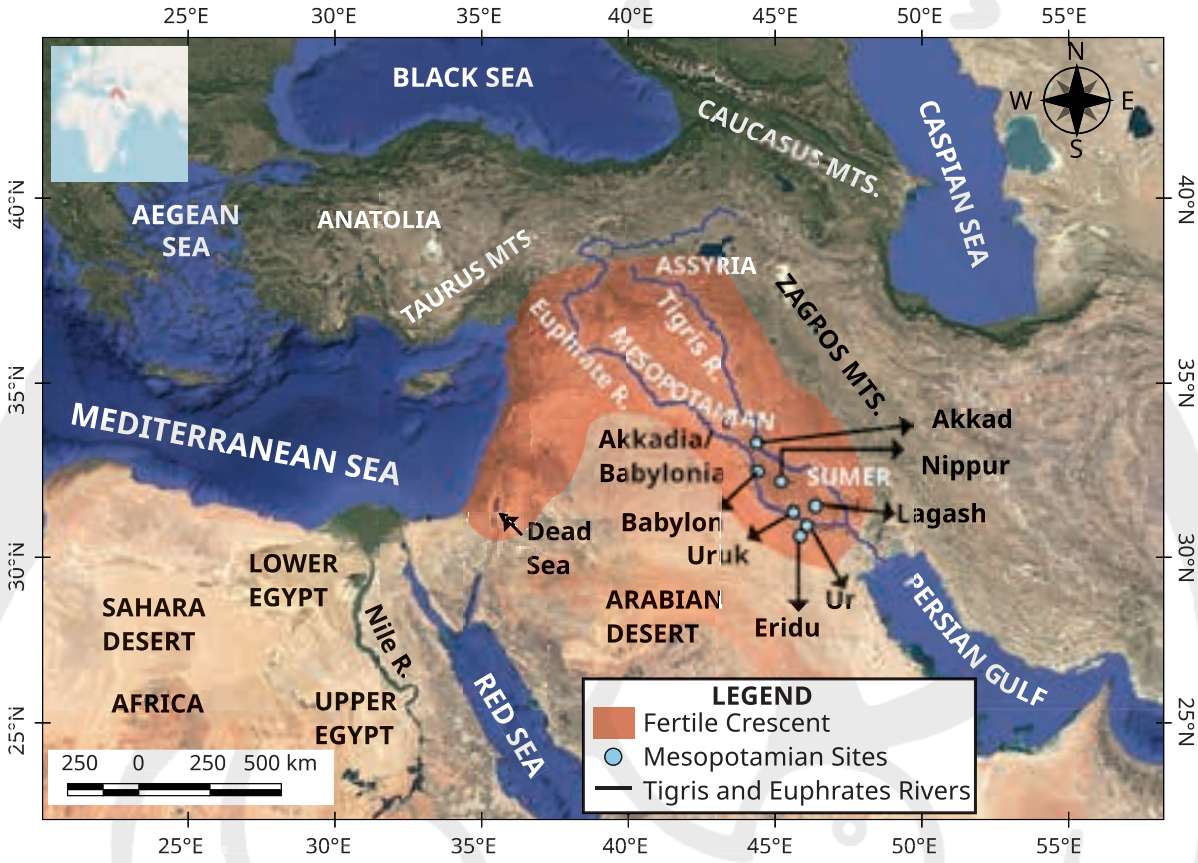


Fig. 4.21. The Fertile Crescent and the extent of the Mesopotamian civilisation

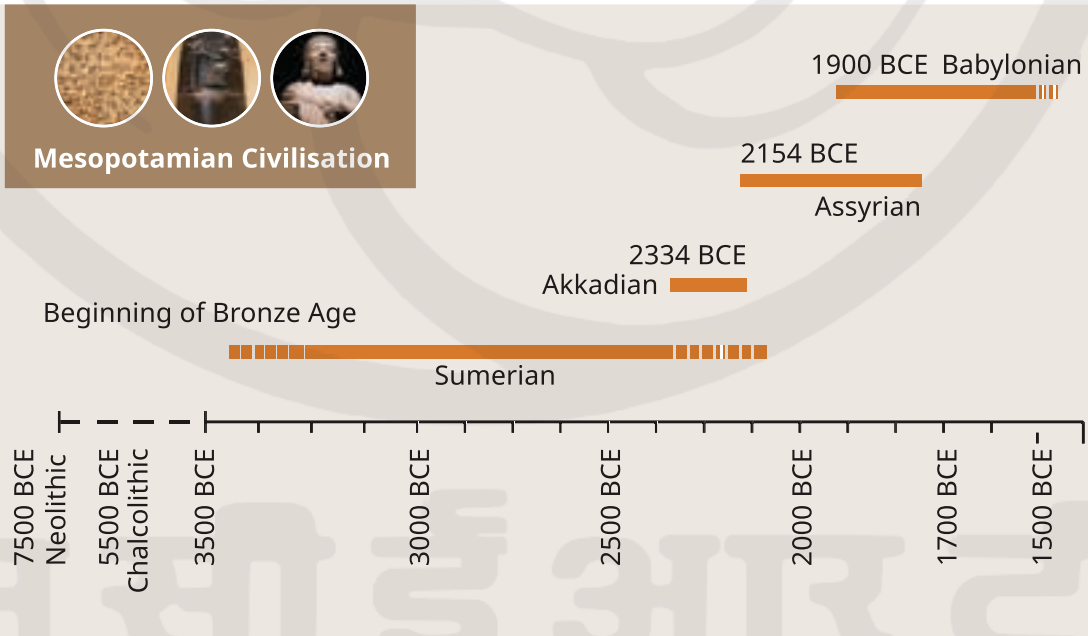


Fig. 4.22. Timeline showing the Mesopotamian civilisation

Over the next 2000 years, some large cities became **'city-states'** by developing governing systems. Among these, the four major city-based civilisations that flourished from 3500 BCE onwards in Mesopotamia are the Sumerian, Akkadian, Assyrian, and Babylonian (Fig. 4.22).

City-State: A sovereign state centred around a city that rules the surrounding territories.

LET'S EXPLORE

Can you find out which countries constitute West Asia in present times?

a. The Sumerians

The Sumerian civilisation was the earliest to evolve into a city-based civilisation at Ur and several other cities in Sumer (present-day southern Iraq) in southern Mesopotamia. The Sumerians were the first to build a system of dams and canals for irrigation, and were also the first to use mud bricks and burnt bricks in the construction of houses, defensive walls, and other structures.

Ziggurat: A tower-like stepped pyramid-shaped temple with several floors above which the main temple was located. The top of the ziggurat was a holy place, and the area around the ziggurat contained palaces and royal storehouses. The surrounding walls had only one entrance as the ziggurat also served as the city's treasury.

Fig. 4.23

The Sumerians worshipped multiple gods, whom they believed had power over natural forces such as floods and winds, and built temples for each of them. Temples played an important role in people's lives, and each city built a grand temple called a ziggurat for its chief god, and the city grew around this main temple (Fig. 4.23). All economic activities, such as agriculture, trade, and the transport of goods, were tied to the temple authority. Also, entry to the sacred temple was restricted to high priests and priestesses, who were probably a part of the ruling class, reflecting a clear division of social hierarchy that existed in the Mesopotamian society.

LET'S EXPLORE

Do you find any similarities between the temples in India and those of the Sumerian civilisation as centres of socio-cultural and economic activity?

Fig. 4.24. Scenes from Sumerian life on a decorated box. Note the wheeled cart and the elaborate drapery and ornaments worn by the people.

Cuneiform: One of the earliest systems of writing that was developed by the Sumerians. It was written by pressing a wedge-shaped stylus into soft clay tablets. The word cuneiform comes from the Latin word *cuneus*, meaning 'wedge', referring to the wedge-shaped marks used in the script.

The cities were large settlements where kings lived in grand palaces, and the people lived in small brick houses. The lives of people mostly centred around farming, and in addition, several crafts, such as metalworking, pottery, and textiles, were practised. Other professionals like merchants and traders also existed.

DON'T MISS OUT

While the Sumerians were developing canal irrigation, the Early Harappans in the foothills of Baluchistan and neighbouring regions were also building check dams known as 'gabarbands' across small streams to enhance irrigation. A much evolved form of these water management skills of the Harappans can be seen in the elaborate water harvesting system built at Dholavira in Kachchh. Here, water from the two nearby streams was diverted by building dams and canals into a series of deep tanks to conserve it within the site boundary. These interconnected tanks were built from stone and mud-bricks and some of the tanks were cut deeper into the bedrock. Similarly, the huge dockyard at Lothal, built entirely of burnt bricks, is another marvel of the Harappan water management and architectural skills.

The Beginning of Writing

The Sumerians were the first to start writing around 3300 BCE, and their writing system is known as cuneiform due to the wedge-shaped

tool used by the scribes. Cuneiform consists of hundreds of marks pressed onto the damp surface of clay tablets using sharp wedge-shaped reeds (Fig. 4.25). Its scribes enjoyed a high status in the society, similar to the priests and priestesses, and by 3000 BCE, cuneiform was widely used all over Mesopotamia by different city-states, even though they spoke different languages.

The cuneiform tablets give us a glimpse into the lives and beliefs of the Mesopotamians—their great myths and epics, their hymns, the "law codes," and educational treatises. Tablets were also used for keeping a record of farming and craft activities, especially of potters, seal cutters, shipbuilders, carpenters, farm workers, etc.

Fig. 4.25. Cuneiform was used to write several languages of Mesopotamia, but later went out of use by the end of first millennium BCE.

DON'T MISS OUT

- The Sumerians invented the wheeled cart and sailboat.
- They used calculations for building structures and measuring agricultural fields.
- Their number system was based on the number 60, and the concepts of the 60-minute hour, 60-second minute, and the 360-degree circle was invented by the Sumerians.

LET US RECALL

The cuneiform writing system was contemporary to the Harappan script, but while cuneiform has been deciphered, the Harappan script has not yet been deciphered. Do you think our understanding of a civilisation changes when its script is deciphered compared to when it is not?

b. The Akkadians

The power of the Sumerians was overshadowed in 2334 BCE by the emergence of a new city-state centred on the city of Akkad, which lay further north in Sumer, in central Mesopotamia. The people of this region spoke Akkadian, a language different from Sumerian. However, both Akkadians and Sumerians used the same cuneiform script for writing. Akkadian records document the consolidation of

power over different regions of Mesopotamia and the establishment of the world's first dynastic empire. This was also a period which saw the evolution of creative literature.

LET'S EXPLORE

The Epic of Gilgamesh, written during the Mesopotamian civilisation, is one of the earliest stories written. Try and find out more such stories and share them in class.

The cuneiform tablets of one of the most important Akkadian kings, Sargon, talk about Mesopotamian trade with the eastern territories of Dilmun, Magan and Meluhha. Among these, Meluhha is generally identified with the Sindhu–Sarasvatī civilisation, and Dilmun and Magan are today's Bahrain and Oman peninsula of the Persian Gulf (Fig. 4.26). With the Harappans, they traded semiprecious stone beads, ivory, timber, gold dust, and probably copper.

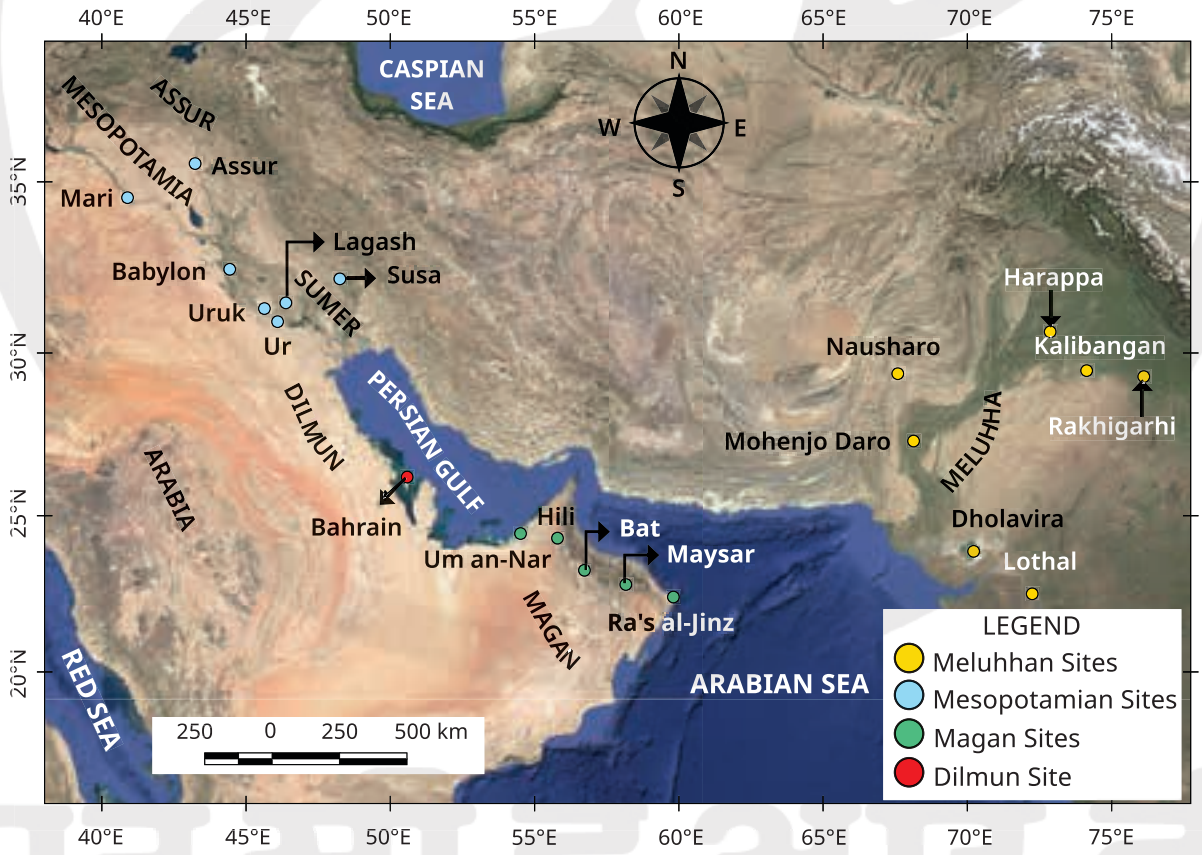


Fig. 4.26. Harappan contact with the Mesopotamian cities and contemporary Chalcolithic sites of Magan (today's Oman) and Dilmun (today's Bahrain)

c. The Assyrians

The Akkadian empire lost its supremacy around 2154 BCE to a new city-state, Assur, in northern Mesopotamia. The Assyrian civilisation that supplanted the Akkadians lasted till early 1700 BCE. In a short period, the Assyrian dominance spread across Mesopotamia and spread over the neighbouring regions in the west and south.

d. The Babylonians

While the Assyrians were dominant in the north, a new city-state, Babylonia, gained dominance in central Mesopotamia from 1900 BCE onwards. Babylonia's glory started with the ascendance of Hammurabi in 1792 BCE, who conquered the neighbouring regions and expanded the small city-state into a large empire. The most significant contribution of Hammurabi was the compilation of rules and regulations for civil and social conduct known as the *Code of Hammurabi* throughout his empire. It served as a foundational model for many future legal systems.

By the end of 1400 BCE, the Babylonians had lost their earlier prominence due to repeated attacks by the **Hittites** and other rising powers, who had gained an advantage by mastering new technologies and adopting more efficient ways of using natural resources. This, along with increasing environmental degradation, pressure on agricultural lands, and internal political and economic problems, gradually weakened Babylonian control. As a result, they were unable to maintain their dominance, and new powers emerged in West Asia.

Fig. 4.27. Top part of a stone stele showing King Hammurabi receiving the law from Shamash, the Babylonian god of justice. Note the law codes inscribed in cuneiform below the relief.

Hittites:
The Hittites were Indo-European people who established a powerful empire in Anatolia (modern-day Turkey) around the second millennium BCE.

Egyptian Civilisation

Egyptian civilisation is one of the earliest civilisations of the world, known for its rich historical records and lasting influence on other civilisations. It is interesting to note that Egypt was known to the Greeks and Romans, and Greek writers like Herodotus visited and wrote about Egypt as early as the 5th century BCE. A 19th century collection of works titled *de L'Egypte* also provides fascinating details about its history.

Papyrus: Was made by cutting the inner trunk of the papyrus plant into strips, criss-crossing, pressing, drying, and polishing them into sheets. The papyrus was named after its discoverers; for example, the Papyrus Ebers, named after its discoverer, lists more than 700 cures and spells of Egyptian medicine.

Egyptian history is also reconstructed from **papyrus** or old paper records. These documents preserve both stories and practical details, offering a window into how Egyptians understood the world.

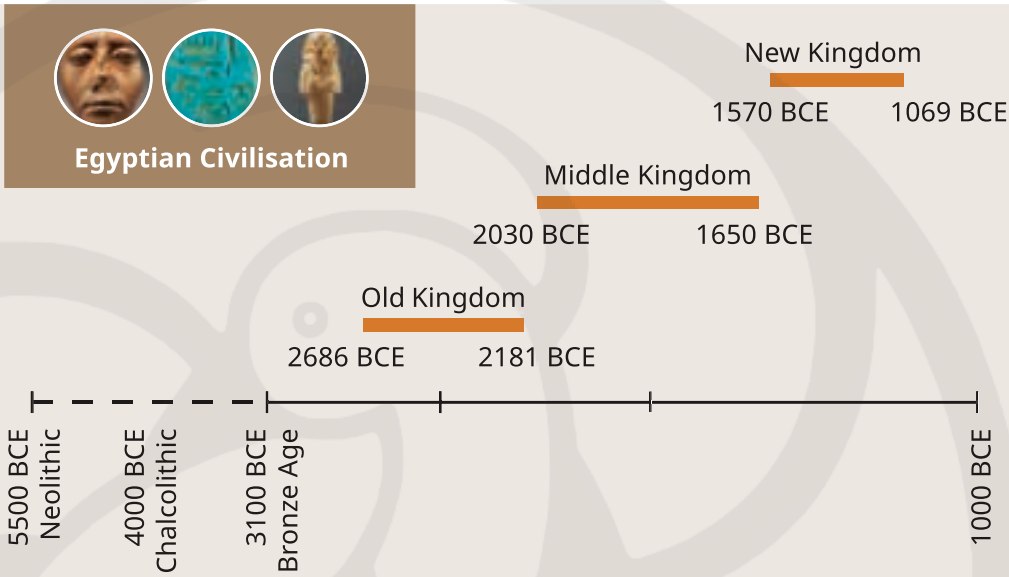


Fig. 4.28. Timeline showing the Egyptian Civilisation

Libraries, dating back to 2000 BCE, stored papyrus scrolls in labeled jars on shelves. One such jar contained the oldest version of the story of *'Sindbad the Sailor'*. Short stories from this period are diverse, including animal fables suggesting a link to *'Aesop's Fables'*, tales of ghosts, miracles, and romances, and even the oldest known form of 'Cinderella'.

DON'T MISS OUT

How was the Egyptian script deciphered?

Pierre Bouchard, a French army engineer, while repairing a fort in Egypt in 1799, found a giant black stone covered in mysterious writing. This was the Rosetta Stone, which had three types of writing, including Greek. Since people could still read Greek, this was a huge breakthrough — like having a bilingual dictionary for a lost language. In 1822, a French linguist, Jean-François Champollion, finally deciphered the script.

The Egyptian calendar has three seasons, each consisting of four months. Inundation (autumn), Peret growing (winter) and shemu harvest (summer). It is based on the rising of Sirius (Dog Star), where, Year = 365 days (12 months × 30 days + 5 extra days). This is quite accurate, but lost time since the real year is about ¼ day longer.

Fig. 4.29. An illustration from the Papyrus of Ani

THINK ABOUT IT

Why do you think there is a scale with a heart on one side and a feather on the other (fig. 4.29)? What can this papyrus tell us about early Egyptian beliefs?

Let us now learn more about how the Egyptian civilisation grew. Egypt saw the emergence of city-states around 3000 BCE as population increased and resources became available. The river Nile watered the land along its banks, and every summer the river flooded, leading to annual inundations, with rich mud, *'kemet'*, excellent for growing crops.

DON'T MISS OUT

Egyptians referred to their land as Kemet. *Kemet* means 'the black', coming from the black river valley soil.

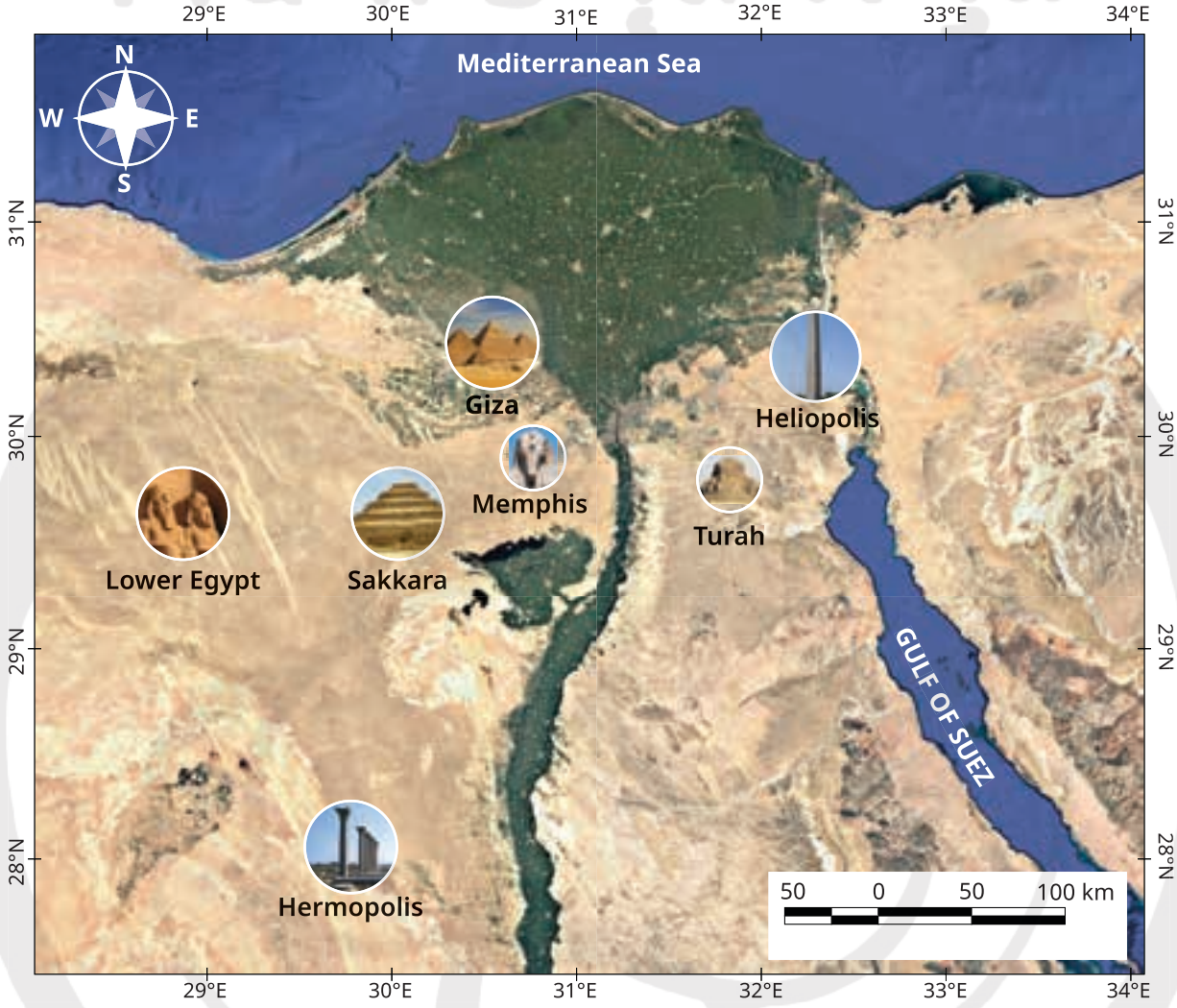


Fig. 4.30. The region in which the Egyptian civilisation flourished

LET'S MAP

Can you locate the River Nile on the given map? Why do you think the northern part is called Lower Egypt and the southern part Upper Egypt?

About 5000 years ago, farmers discovered that by digging ditches they could divert water from the Nile into their fields and store water in reservoirs for later use. By counting the days between Nile floods, the Egyptians developed a calendar.

The need to dig ditches and construct dams required collective effort. These early cooperative efforts must have led to the growth of local government, accompanied by the rise of the administrative class, probably making up the earliest form of local government in Egypt.

Fig. 4.31. The Step Pyramid at Saqqara

Over time, powerful individuals called 'Pharaohs' emerged as the rulers of Egypt. After their death, these pharaohs were buried deep underground and a rectangular structure called a *mastaba* was placed over the burial chamber. Gradually, these *mastabas* were placed one on top of the other to form a pyramid. One prominent example of such pyramids is the step pyramid at Saqqara. The pyramids were built primarily because the Egyptians believed that each person had a *ka* (a spiritual double) that lived on after death if the body was preserved through **mummification**.

Mummification: The process involved removing the internal organs (except the heart) and drying the body with natron. The body was then oiled, wrapped in linen strips, placed in a coffin, and buried with rituals.

LET'S EXPLORE

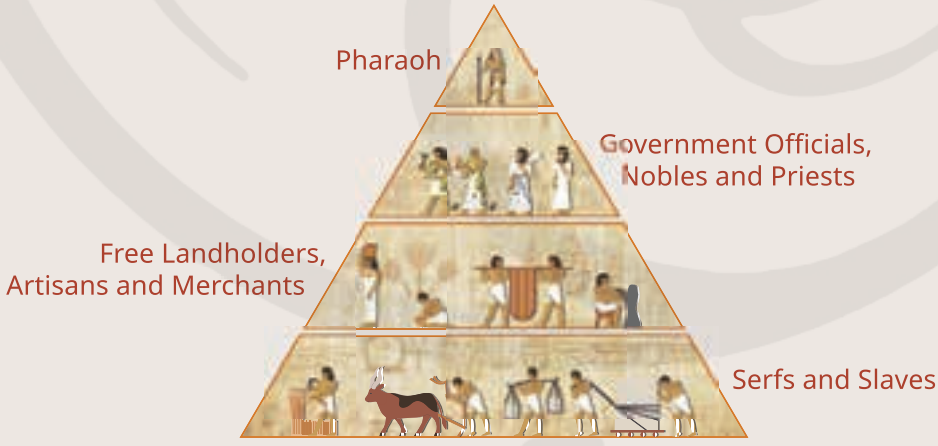


Fig. 4.32 Social hierarchy Pyramid

Look at the social hierarchy pyramid in the image. What were the social classes of early Egypt? What were the different kinds of occupations? What could have been a typical daily routine of the people from each class?

Fig. 4.33. Daily items used by the Egyptians

THINK ABOUT IT

Observe the images given above. What do they tell you about Egyptian fashion?

- Which social classes do you think used these items?
- What clues in the images help you to make this guess?

Try to explain your reasoning based on the materials, designs, or accessories shown in the pictures.

Early Egyptians enjoyed leisure activities as well. They swam, canoed, played board games and even enjoyed music and dancing. Festivals were central to early Egyptian culture, dedicated to gods and the pharaoh's rule. Each god had a festival in which their statue was paraded, accompanied by music played on instruments such as the 'sistrum'. Festivals also celebrated reign of the pharaoh. For example the Sed festival was held to mark a king's 30th year on the throne. These grand events showed the people's deep reverence for their gods and ruler.

DON'T MISS OUT

Egyptian women, in general, enjoyed more rights than their Greek or Roman counterparts, as they could own property and run businesses. For instance, Cleopatra (69-30 BCE) was trained from childhood to rule; she became queen at the age of eighteen.

Fig. 4.34. An image of Cleopatra at the age of eighteen on the wall of a temple

The Chinese Civilisation

You have already seen in the case of Mesopotamia and Egypt how rivers helped civilisations grow. Can you recall how they supported people's lives?

The Chinese civilisation flourished along the rivers— the Huang He (Yellow River) and the Yangtze. These two river valleys were also centres of early Chinese Neolithic cultures dating to around 7000 BCE. Around 2000 BCE, the introduction of copper/bronze metallurgy brought many of the Neolithic settlements, especially those in the Yellow River basin, to the threshold of the Bronze Age. However, it was only around 1600 BCE that urban centres began to emerge with the expansion of agricultural productivity and advancements in metallurgy and craft production. These events led to the rise of the first Chinese Bronze Age territorial empire.

The history of China is organised into various dynasties, the Shang dynasty (1600–1046 BCE) and the Zhou dynasty (1046–256 BCE) were two well-known dynasties of the Bronze Age. By 600 BCE, the use of iron became popular throughout China, and the Chinese Iron Age generally dates from this period onwards. The name 'China' probably comes from the Iron Age Qin (Ch'in) dynasty (221-206 BCE), also known as the first imperial dynasty of China, which is credited for unifying the country. Another important Chinese dynasty of the Iron Age was the Han dynasty (206 BCE–220 CE).

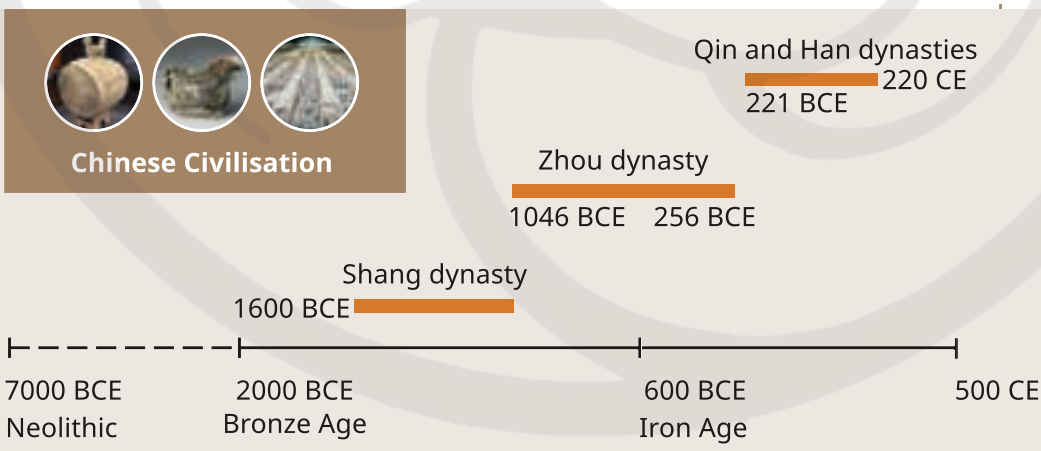


Fig. 4.35. Timeline showing the Chinese civilisation

DON'T MISS OUT

- The Zhou rulers were both kings and priests, believed to be appointees of heaven, but they could be dismissed when their people did not prosper.

- Public officials were chosen with great care, after being examined in archery, horsemanship, calculations, writing, and music.

How do we know what we know about China?

Fig. 4.36. Chinese oracle carvings on bone

China has an abundance of historical records as official historiographers recorded events. However, the earliest source of information about China are the 'oracles', which were symbols made on pieces of animal bones and tortoise shells. These bones were heated until they cracked, and interpretations were made based on the patterns of the cracks. These oracles were often used to foretell the future, and today, they tell us a lot about the hopes, desires, and fears of the early Chinese.

LET'S EXPLORE

The Chinese script is logographic, with characters representing entire words or morphemes (smallest meaningful units of language), rather than sounds. Person 人 Tree 木

Explore more examples of Chinese characters that resemble the objects or ideas they represent. Note down at least two such characters and explain how their shapes are connected to their meanings.

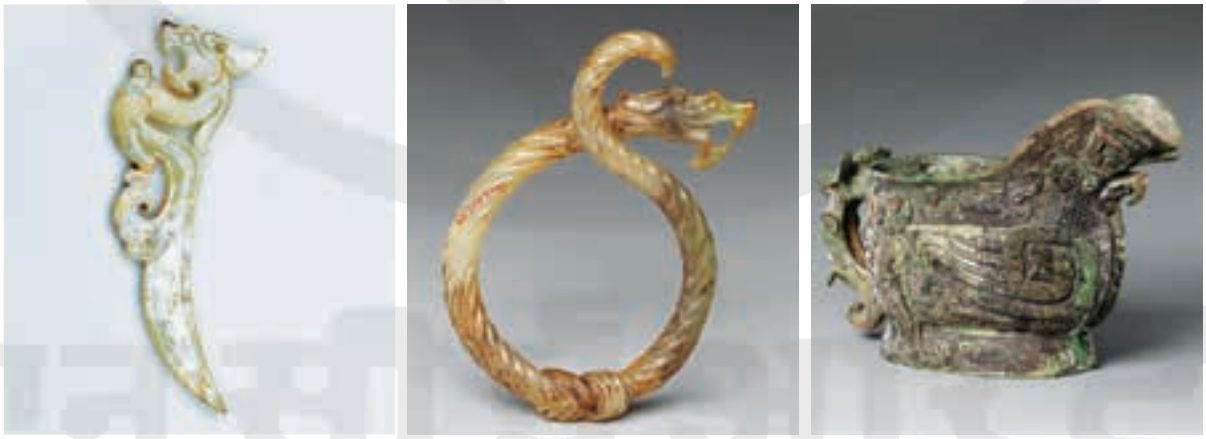


Fig. 4.37. L to R – Jade dragon from 3300–2000 BCE; Jade dragon pendant, Zhou dynasty; Bronze wine pouring vessel, Shang dynasty.

Some other craft items unique to the Chinese civilisation were the jade objects and figurines, which were either ritual or prestige objects. They probably played an important role in social transactions, as jade was not locally available and was obtained from outside China. Marble was also carved into ornaments in the form of birds and animals, and as foundations for wooden pillars. Besides these, the Chinese mastered bronze metallurgy to produce weapons, tools, and elaborate ritual vessels.

DON'T MISS OUT

Chinese artisans skilfully carved jade into shapes of objects such as fish and tied them with a cord. When struck, these jade pieces produced a clear and lasting musical sound. This practice reflects the importance of music in Chinese culture and highlights the high level of craftsmanship achieved by the Chinese people.

Fig. 4.38. The Great Wall of China

The Great Wall of China was built over a period stretching to two thousand years. Initially, several walls were built from 680 BCE onwards by the Zhou and other dynasties as protection against the violent raids of nomadic tribes. These were later joined together to make an effective defence mechanism. The expansion and repair of the wall continued till the 17th century CE.

THINK ABOUT IT

What could have been the other reasons for building the Great Wall of China? Explore and share your findings on the Great Wall through a model or presentation.

Silk was known to the Chinese from the Neolithic period (4000–3000 BCE) onwards and became an important craft during the Bronze Age. However, around the 2nd century BCE, during the time of the Han dynasty, silk became a major item of external trade, so much so that the entire route on which it was traded came to be known as the 'Silk Route'.

LET'S RECALL

Do you remember studying about the Silk Route in Grade 7? How was India connected with it? Can you recollect China's contact with India with reference to Buddhism that you studied in Grade 7?

By 1500 BCE, the Chinese Bronze Age society was highly stratified with the ruling class, nobles, and aristocrats at the top, followed by farmers and labourers, which laid the foundation of Chinese social hierarchical structure that evolved later.

DON'T MISS OUT

A metal-based medium of exchange appeared during the Zhou dynasty, and a money economy developed by the 5th century BCE. China was also the first country to introduce paper currency to the world, and the first to develop civil services through public examination.

We have seen how major Bronze Age civilisations of the world emerged independently in the fertile river plains. Harnessing agricultural productivity and the incorporation of new resources helped economic growth, leading to the emergence of urban cities in all these major centres of civilisation. They developed social and administrative systems independently to ensure and enhance economic growth. The development of writing systems enabled early societies to record economic transactions and social activities, and over time, it also led to the composition of literary and creative texts. Thus, many of our cultural ethos have their roots in the Bronze Age civilisations.

Before we move on...

- Early human history refers to the long period of human history before the invention of writing and is studied mainly through archaeological evidence such as tools, fossils, and cave art.
- Early humans evolved in Africa and gradually migrated to different parts of the world.
- During the Palaeolithic period, humans were hunter-gatherers who used stone tools like handaxes, cleavers, and scrapers, and lived in caves or open camps.
- In the Mesolithic period, humans developed microlithic tools and began occupying temporary settlements near rivers and lakes.
- The Neolithic period marked a major shift to agriculture and domestication of animals, leading to permanent villages, pottery making, and weaving.
- The Chalcolithic period witnessed the use of copper along with stone tools and the growth of early farming communities.
- These developments led to the emergence of Bronze Age civilisations, characterised by urban centres, trade, writing, administration, and social organisation.
- Major early world civilisations such as Sindhu–Sarasvatī, Mesopotamia, Egypt, and China developed independently in fertile river valleys and made significant contributions in agriculture, writing, architecture, administration, and culture.

Questions and activities

1. Do you think life became easier or more challenging after humans started farming? Give two reasons for your answer.
2. The environment offers human societies both opportunities as well as challenges. Explain with reference to early farming communities and river-valley civilisations.
3. Why do historians divide early human history into different ages such as Stone Age, Bronze Age, and Iron Age? What does this classification tell us about human progress?
4. Imagine you are a Neolithic farmer. Describe one day of your life. What challenges would you face that a hunter-gatherer would not?

5. Imagine that the Harappan script gets deciphered tomorrow. What new types of information do you think historians might learn?
6. Prepare a table with three columns—Palaeolithic, Mesolithic, and Neolithic—and fill in their distinctive features: tools, settlements, art, and subsistence.
7. "Bronze Age civilisations developed independently but shared common features." Examine this statement with reference to the civilisations given in the chapter.
8. Although rivers provided many benefits, they also created challenges for early societies. Discuss both the advantages and disadvantages of settling near rivers.
9. With the help of your teacher, find out more about the Code of Hammurabi. Why was it important? Do you think it was fair to all sections of society? Give reasons for your answer.
10. If you had to choose one major innovation from early civilisations that changed the world permanently, what would it be and why?
11. Compare the social hierarchy and daily life of people in the Egyptian civilisation with those in Mesopotamia or China. What similarities and differences do you notice?
12. Activity: Using maps, locate the major rivers and civilisations of Mesopotamia, Egypt, China, and the Sindhu–Sarasvatī Valley. Mark the trade links between them.
13. Activity: Choose one early civilisation (Mesopotamia, Egypt, or China) and prepare a mini-scrapbook or a presentation showing their innovations in tools, writing, art, and architecture. Include pictures, brief descriptions, and explain their significance.

Notes

Chapter 5

State and Society up to 1000 CE

The Big Questions

1. *How did society and state organise themselves prior to 1000 CE?*
2. *How did states and societies emerge and spread to different parts of the Indian subcontinent?*
3. *How did the ideas of dharma and chakravarti samrāṭ help create unity in social values and governance, and promote the idea of the Indian subcontinent as one political entity?*
4. *How did different social, administrative, and occupational groups take shape over time and come together culturally?*

In the previous chapter, we traced the long journey of human development from our early ancestors to the emergence of settled communities and, subsequently, civilisations. We also examined the Sindhu–Sarasvatī civilisation along with other Bronze Age civilisations of the world.

Let us now study the historical developments in the Indian subcontinent, with reference to state and society up to the end of the first millennium CE. By the end of this chapter, we will notice that our understanding of this period is more detailed and qualitatively enriched. This is because, from at least the second millennium BCE, we begin to find literary sources—the *Ṛig Veda* being the earliest—that supplement archaeological evidence and provide insights into the social, political, cultural, and moral dimensions of the past. As a result, we gain insights into the social and political realities, ideas, ideologies, institutions, and practices of this period. We will begin with the social and political landscape described in the literary sources such as kin-based social organisation *(jana, kula*) and early forms of polity. Thereafter, we will study their development into more complex and bigger, territory-based political units like *janapadas* and *mahājanapadas*, and eventually into empires during the time of the Mauryas and the Guptas in northern India, and the Cholas in southern India. Alongside these

changes, we will also examine elements of continuity, particularly the political ideal of a pan-Indian monarch—expressed through ritual practices such as the *aśhvamedha yajña* and the concept of the *chakravarti samrāṭ*—as well as the enduring socio-ethical principle of *dharma*.

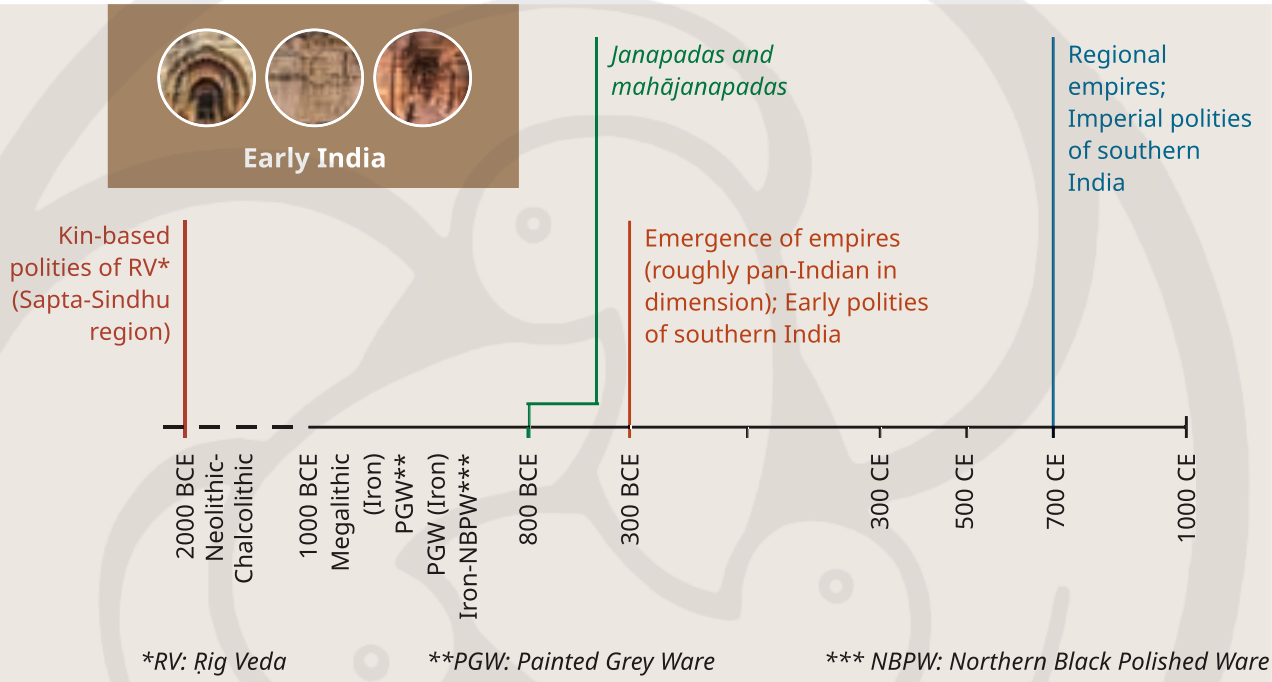


Fig. 5.1. Broad timeline of early India

This long span of time (refer to Fig 5.1) witnessed the rise and fall of many dynasties and regional powers across the Indian subcontinent, which you have also explored in previous grades. In this chapter, we will gain a deeper understanding of the broad features of the state and society of this period, through representative examples from different regions of the subcontinent.

LET'S EXPLORE

As you read the chapter, follow the timeline at the bottom of each page. Notice the important events, changes, and connections across time. Think about which event interests you the most and why. By the end of the chapter, share one event you would like to explore further and document:

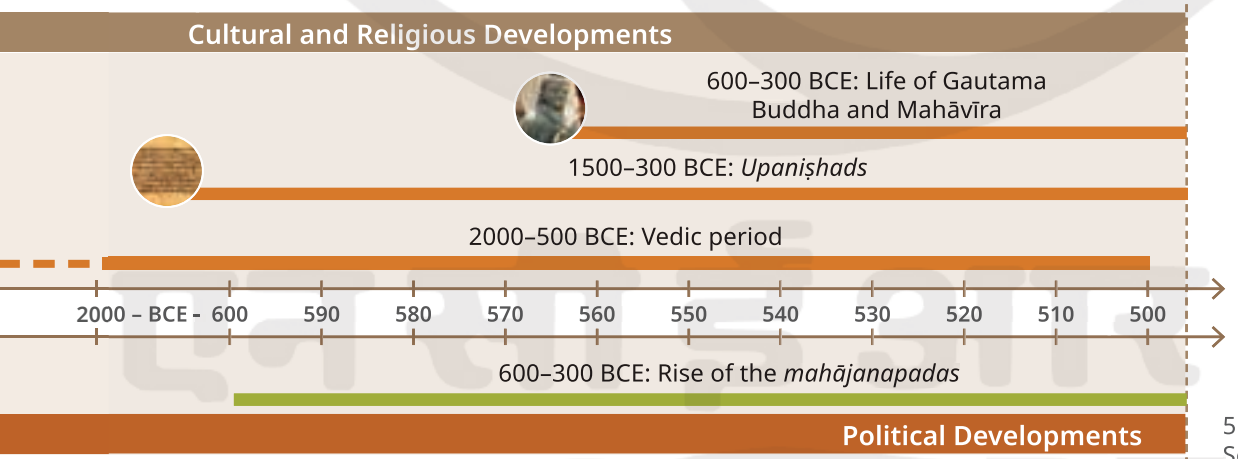
1. What happened?
2. When did it happen?
3. Why do you think it matters?

Understanding Early Indian State and Society

Whenever large groups of people live together, certain rules and shared norms evolve over time to maintain order and harmony. These rules and norms bind different social groups into a unified whole, forming a 'system' that helps organise and govern people effectively. From early times, Indian society developed several such systems of organisation based on existing customs, traditions, and agreed practices. Before examining these systems, however, let us first explore a fundamental question—what is society?

A **society** may be understood as a system of social relationships among individuals who share a common territory, culture, and a shared sense of belonging. It consists of structural units such as families or households, institutions such as marriage, and customs that provide a framework for individual and social life. Most importantly, society is primarily regulated by customs and practices rather than formal laws.

And what is a State? As you read in your previous grades under the theme 'Governance and Democracy', a '**State**' refers to an organised political system based on rules and laws. It includes well-defined rights and duties of rulers and subjects, mechanisms of governance, and institutions for enforcing law and order. From a historical perspective, such political systems developed gradually as societies became larger and more complex. By studying early historical sources, historians attempt to understand how forms of governance



and political authority evolved over time. Against this background, let us now explore the evolution of the state and society in India, beginning with the Vedic period.

The Beginnings...

Fig. 5.2. A Ṛig Veda manuscript as rendered in Devanagari script

The Vedas constitute the earliest known corpus of Indian literature, especially since the script used by the Harappans of the Sindhu–Sarasvatī civilisation has not yet been deciphered. What we know today as Vedic literature existed in oral form for several centuries before it was written down. We have read in previous grades that the date of composition of the *Ṛig Veda* remains debated among historians, with estimates ranging from the fifth millennium BCE to the second millennium BCE. We have also studied earlier that the *Ṛig Veda* was composed in the northwestern part of the Indian subcontinent, where the Sindhu–Sarasvatī civilisation flourished. Interestingly, both the *Ṛig Veda* and the Sindhu–Sarasvatī civilisation were familiar with copper.

Cultural and Religious Developments

Life of Gautama Buddha and Mahāvīra

1500–300 BCE: *Upaniṣhads*

490 480 470 460 450 440 430 420 410 400

600–300 BCE: Rise of the *mahājanapadas*

Political Developments

State and Administration

The Vedic Period

The Four Vedas

Ṛig Veda

The earliest veda, containing some of the world's oldest-surviving poetic compositions. It consists of 1,028 hymns (*sūktas*), some in praise of various deities while others reflect on universal thoughts, such as creation and cessation, birth and death, and so on.

Yajur Veda

Elaborates the performative aspects of *yajnās* and the hymns referred to in the *Ṛig Veda*. It includes explanations in prose.

Sāma Veda

Comprises hymns drawn from the *Ṛig Veda*, carefully arranged for musical recitation. Its chanting tradition forms an important foundation for the system of the seven *svaras* (notes) that lie at the heart of Indian music.

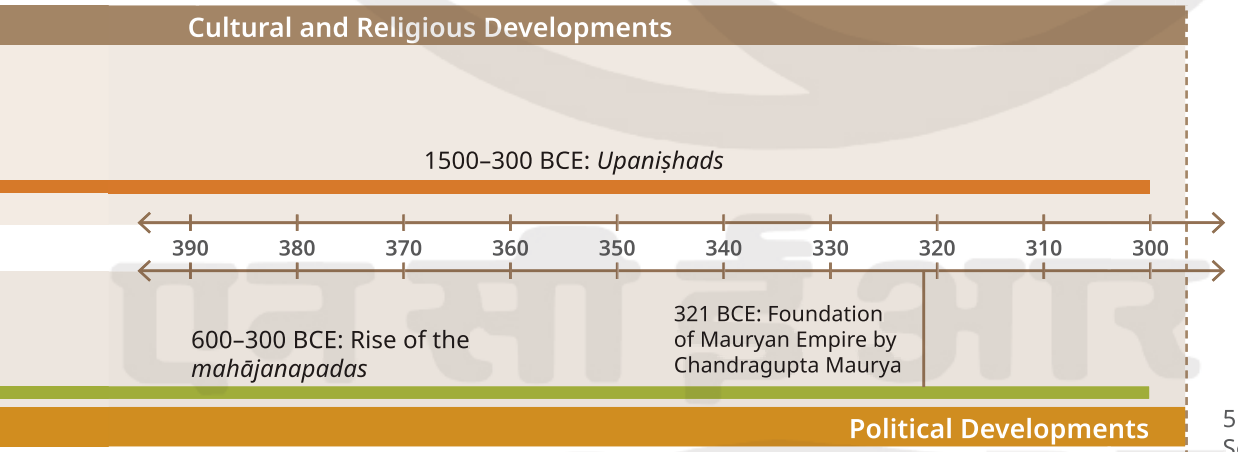
Atharva Veda

Contains a wide range of hymns—some intended to ward off evil, and others related to the treatment of physical and mental ailments.

Each text of the Veda has the following four parts: *samhitā*, *brāhmaṇa*, *āranyaka*, and *upaniṣhad*.

- *Samhitās* primarily contain hymns used for invoking the deity and for offering oblations in the *yajña*.
- The *Brāhmaṇa*, composed in prose, offer explanations for ritual performances.
- The *Āraṇyakas* (*araṇya* = forest) expand on philosophical speculations of sages living in forests.
- The *Upaniṣhads* delve into issues like the Self (*Ātman*) and the Ultimate Universal Being (*Brāhmaṇ*).

Note that while *Brāhman* is a concept, *Brāhmaṇas* are texts and *Brāhmaṇas/Brahmins* is a *varṇa* category.



Vedic texts are often used by historians and other scholars to learn about the times and geographies in which they were composed. For instance, the earliest sections of the *Ṛig Veda* were composed in the region known as *Sapta–Sindhu*—including the Indus River, its five tributaries, and the Sarasvatī. Vedic texts are also studied to gain insights into the lives of people, social structures, political systems, economic pursuits, and religious practices. As one of the earliest texts and given the continuity of cultural practices, the Vedic texts are regarded as foundational to Indian culture and traditions.

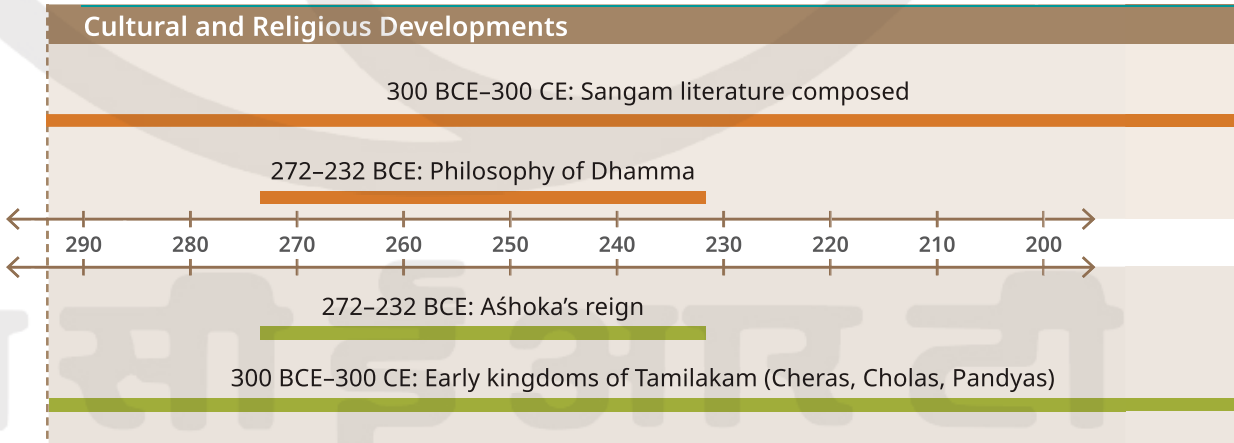
Political Institutions in the Vedic Period

We have read in previous grades that early Vedic society was organised into *janas*, or clans. These were groups of people bound by kinship ties. The *Ṛig Veda* alone mentions about thirty *janas*, five of which—the Yadu, Turvaśha, Puru, Anu, and Druhyu—were collectively known as the *pañchajana* ('five peoples').

LET'S RECALL

In previous grades, you have read that the name 'Bharata' first appears in the *Ṛig Veda*. It is used in reference to the 'Bharata *jana*', or the people who were ruled by the family of the Bharatas. What does this tell us about how early communities identified themselves and their rulers?

During this period, the rājā functioned primarily as a clan chief who led the group in warfare and ensured the protection of its members. The Vedic texts, particularly the *Ṛig Veda* and *Atharva Veda*, refer to three assemblies. These were called the *sabhā, samiti,* and *vidhata*.



Each of these assemblies played a significant role in early Vedic polity.

Assemblies during Vedic Period

Sabhā	*Samiti*	*Vidhata*
◈ A smaller body that primarily served a judicial function. ◈ Composed of select elites.	◈ A larger assembly focused on policy decisions and political affairs. ◈ Represented the broader population.	◈ A popular gathering attended by members of the community (*janas*). ◈ Functioned as a forum for discussions on warfare and other political matters.

THINK ABOUT IT

In modern democracies, heads of government exercise power but are bound by constitutions and parliaments, which function as representative bodies that check the powers of elected leaders. Do the roles of the *rājā* and the assemblies in Vedic times suggest a similar principle? Can we say that systems of governance in Indian history—since their early institutionalised forms—were guided by the idea of ensuring people's participation in the political process?

Cultural and Religious Developments

300 BCE–300 CE: Sangam literature composed

190 180 170 160 150 140 130 120 110 100

185 BCE: Foundation of Śhunga empire by Puṣhyamitra Śhunga

300 BCE–300 CE: Early kingdoms of Tamilakam (Cheras, Cholas, and Pandyas)

Political Developments

Fig. 5.3. First millennium BCE (iron finds)

LET'S ANALYSE

If you visualise the maps of the Indian subcontinent of the second and first millennium BCE, you will find more settlements concentrated in the Gangetic region in the latter map. Archaeological findings from this region during the first millennium BCE provide increasing evidence of the use of iron implements, a wider variety of grain, and the characteristic PGW pottery. Further, in the second half of the first millennium BCE, particularly in the middle Gangetic region (from present-day Prayagraj to eastern Bihar), there is evidence of a refined

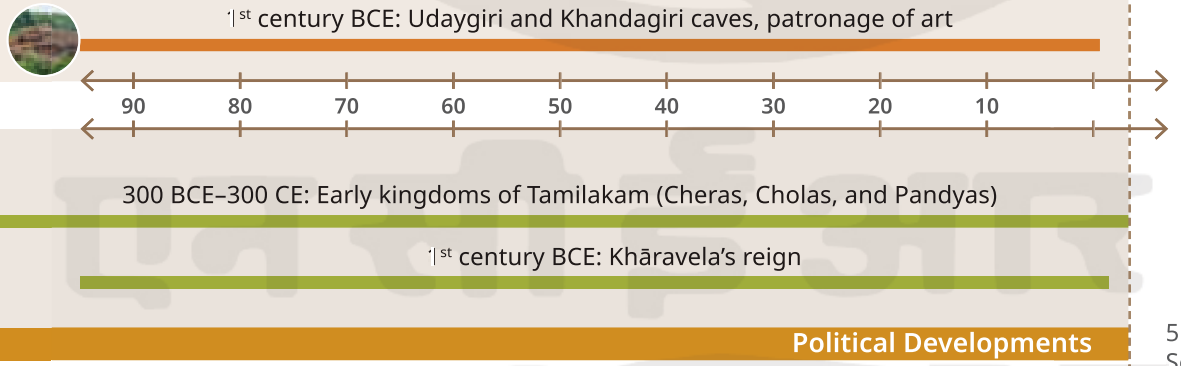
'deluxe ware' called NBPW, known for its smooth, glossy black surface. Archaeologically, this phase marks the emergence of a richer, more advanced material culture. Literary sources from this period also contain numerous references to expanding agricultural activities, increased grain output, greater crop variety—particularly paddy—and the use of iron implements.

Can you identify the crucial factors behind this change?

Early Kingdoms and Republics

With the passage of time, the political organisation of Vedic society evolved into territorial entities known as *janapadas*. The term *janapada* literally means where a people (*jana*) first set its feet, indicating a transition from kinship-based identity to territorial identity. This transition happened between approximately 1000 BCE and 600 BCE. In other words, people were not only connected solely by kinship ties but also by a sense of belonging to a land that gave them a more concrete sense of identity. Some scholars have viewed this transition as a consolidation of identity for the Vedic *janas*. Thus, control over land, agricultural production, and trade routes became increasingly important, leading to the development of more complex administrative systems. As a result, the period approximately from 600 BCE to 300 CE witnessed the rise of new political formations—mentioned in the contemporary texts as the *mahājanapadas* (bigger political units than *janapadas*).

Historical sources for the period usually speak of sixteen *mahājanapadas*. Among these, Magadha, located in present-day Bihar, gradually emerged as the most powerful. Its strategic location, fertile plains, and strong rulers enabled it to expand its control over



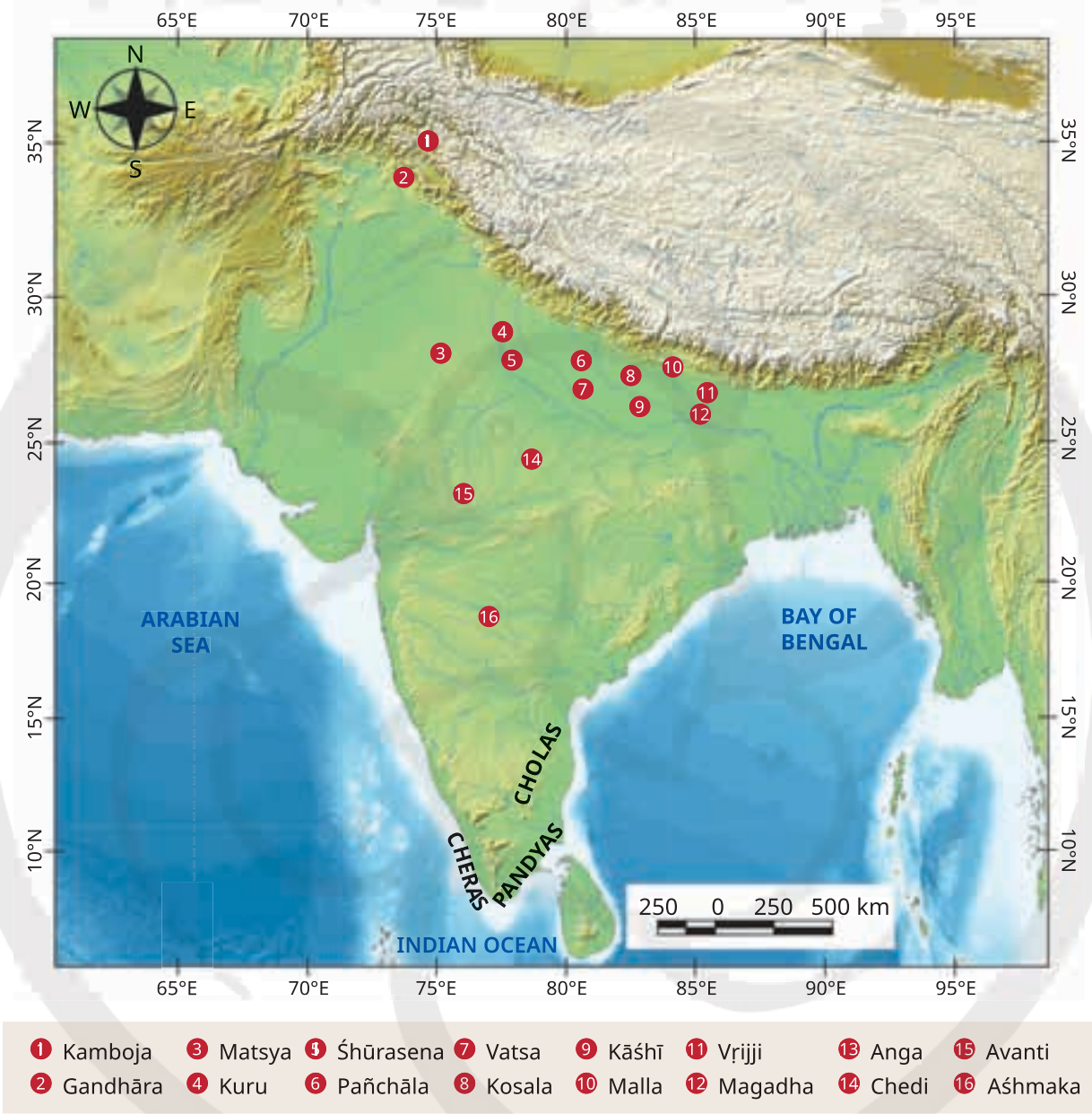


Fig. 5.4. Spatial distribution of the sixteen mahājanapadas and kingdoms of Tamilakam

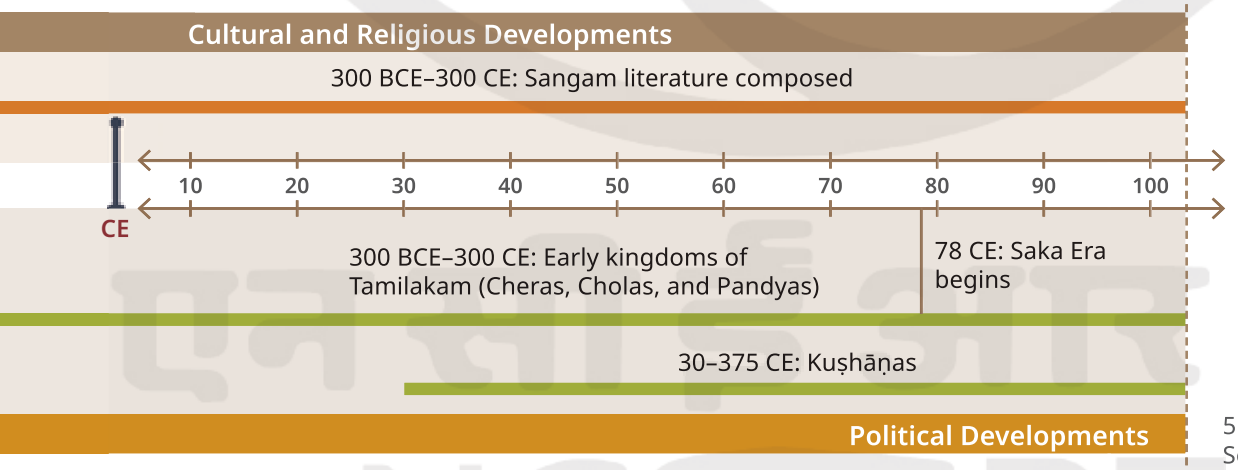
neighbouring regions. This expansion eventually led to the rise of the Mauryan Empire, which became one of the largest and most powerful empires in early Indian history.

Another significant development during this period was the expansion of Vedic culture in the Ganga plains. While the early Vedic culture was most prominent in the northwestern regions, particularly the Indus and Sarasvatī valleys, the later Vedic period saw the Ganga plains emerge as the main centre. Consequently, the

region witnessed significant sociopolitical changes. This included substantial growth in agriculture, the formation of larger political units, and the development of more complex social institutions by about 600 BCE. However, this was also a time when the political landscape of northern India had evolved to include different forms of political organisation. These comprised monarchical states (*rājyas*) and republican states (*gaṇas* or *saṁghas*). In southern India, particularly in the Deccan, the Mauryan Empire was succeeded by the Satavāhana Empire, which lasted nearly 500 years, from the 2nd century BCE to the 3rd century CE. Further south in peninsular India, there were the polities of the Cholas (in the lower Kaveri River valley), Pandyas (in the river valleys of the Tamraparni and Vaigai), Keralaputras (identified with the Cheras in Kerala), and the Satiyaputras (in the northern part of Tamil Nadu). These polities also find mention in the Aśhokan inscriptions.

LET'S RECALL

You may remember from your previous grades that the three important kingdoms of southern India, the Cholas, Cheras, and Pandyas, had their own royal emblems. The tiger was the emblem of the Cholas, the bow represented the Cheras, and the fish symbolised the Pandyas. Much of what we know about these early Tamil kingdoms comes from Sangam literature, the earliest Tamil literary tradition, which dates between 300 BCE and 300 CE. The Chera, Chola, and Pandya rulers were known as the three crowned kings or "*Vendar* of Tamilakam", and their kingdoms flourished in fertile rice-growing regions. Sangam poems also describe brave and ambitious kings, including a Chera ruler who earned the title

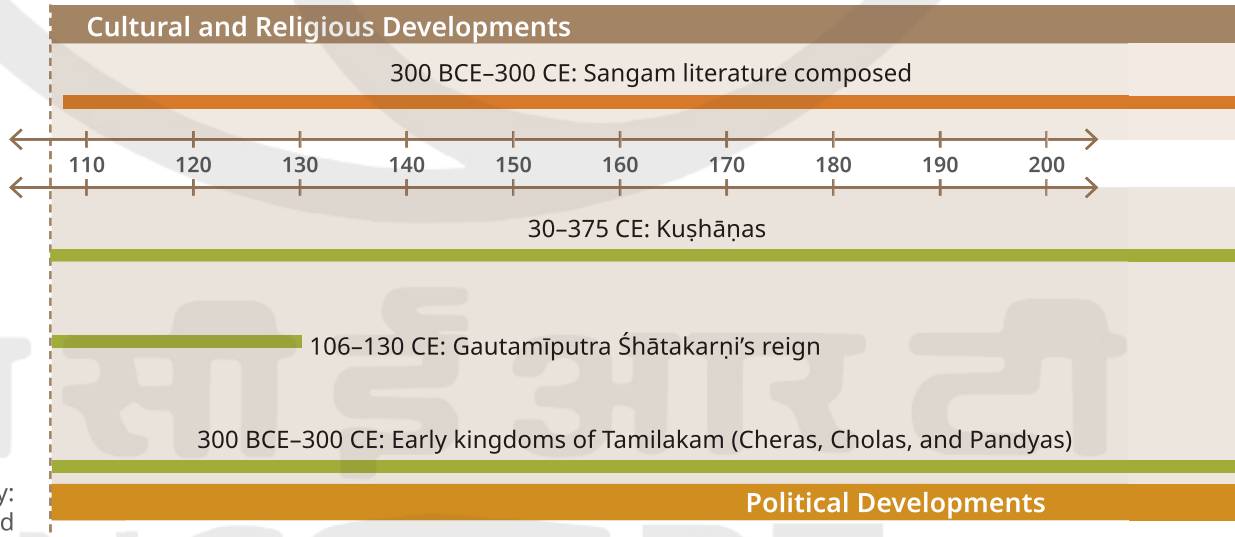


adhirāja after defeating several crowned kings. These poems further mention Vedic *yajñas* and links with epic traditions. However, these early kingdoms should not be confused with the later imperial Chola, Chera, and Pandya kingdoms that emerged many centuries later.

Duties and Ideals of the King

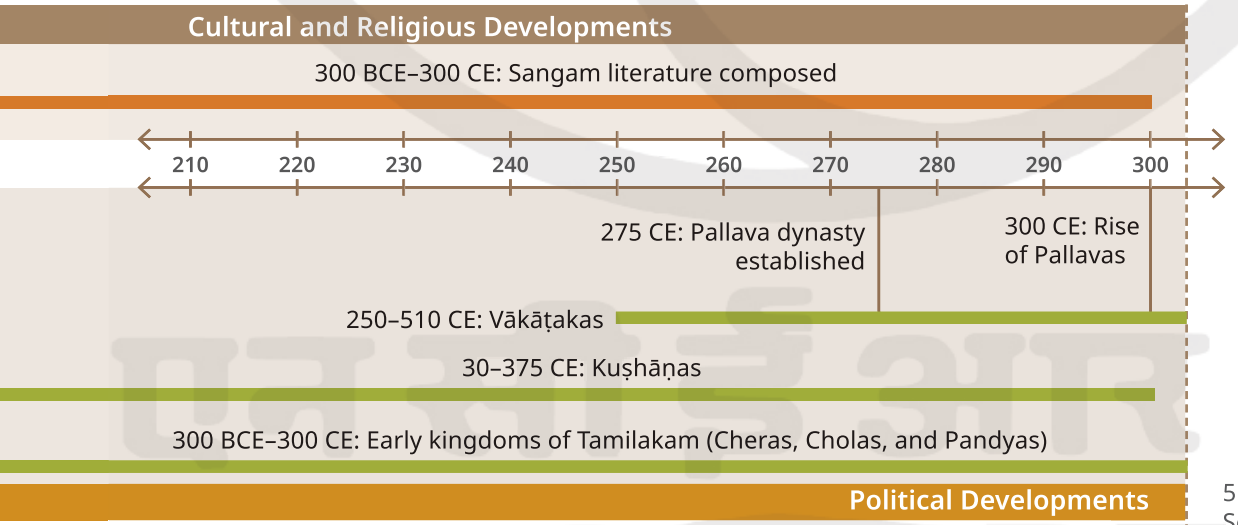
From the 6th century BCE onwards, rulers came to be known by various titles, such as *rājā, mahārāja,* or *samrāṭ*, across different regions, reflecting regional political traditions. Nonetheless, early Indian texts provide important insights into ideas of kingship and governance. For instance, Kauṭilya's *Arthaśhāstra* states, "Only if a king is himself energetically active, do his officers follow him energetically." Further, with reference to the oath of coronation in the *Yajur Veda*, the king is advised to judge the strong and weak impartially and fairly in addition to protecting the country from all calamities and do good to the people.

The *Śhānti Parva* of the *Mahābhārata* provides guidance to rulers on ethical conduct, justice, and the responsibilities of a king towards his subjects. The king was primarily responsible for protecting his subjects from external threats and internal disorder. He was also expected to administer justice in cases, such as abduction, robbery, theft, and adultery. Punishments for serious offences—including the killing of a cow, acts of treachery, and the consumption of intoxicating liquor—were severe and could include harsh penalties, sometimes even capital punishment. While kingship was generally hereditary,



there are references to kings being elected or even expelled. This suggests that royal authority was not always absolute and that succession was not entirely hereditary in practice.

It is important to note that the geopolitical awareness of early Indian monarchs was not limited to the boundaries of their kingdoms but extended to the whole Indian subcontinent. This pan-Indian geopolitical awareness was expressed through terms such as *Jambudvīpa*, *Bhāratavarṣha*, *Aśhvamedha* and *Rājasūya yajña*, *Prithivi*, and *chakravarti kśhetra*. Embedded in these expressions were ideas of sovereignty and political authority over a territory that can largely be understood as the Indian subcontinent. The Mauryan ruler Aśhoka, for instance, in one of his edicts, states that his "energetic exertions" (*pakama*; *parākrama* in Sanskrit) led to "significant changes in the spiritual life in *Jambudvīpa*." Similarly, the meaning of *Prithivi* (*pathivi* in Prakrit) by Aśhoka becomes clearer in the *Arthaśhāstra*, where it is defined as "the area lying between the Himavat (Himalayas) and the sea." The *Arthaśhāstra* further equates the term *prithivi* with the *chakravarti kśhetra*, or the "domain of a universal paramount ruler." This ideal of exercising political authority over the subcontinent continued to be expressed in later periods. Very early during the Sangam period in southern India, a Chera king Nedunjeral Adan is described to have not only won the rank of *adhirāja* for himself, but also to have extended his conquests up to the Himalayas in the north. Similarly, in the 11th century CE, the Chola ruler Rajendra I adopted the title *Gangaikonda* to commemorate his conquest of regions along the Ganga. Thus, the aspiration to exercise political authority over the Indian subcontinent was repeatedly expressed in the history of Indian kingship.



THINK ABOUT IT

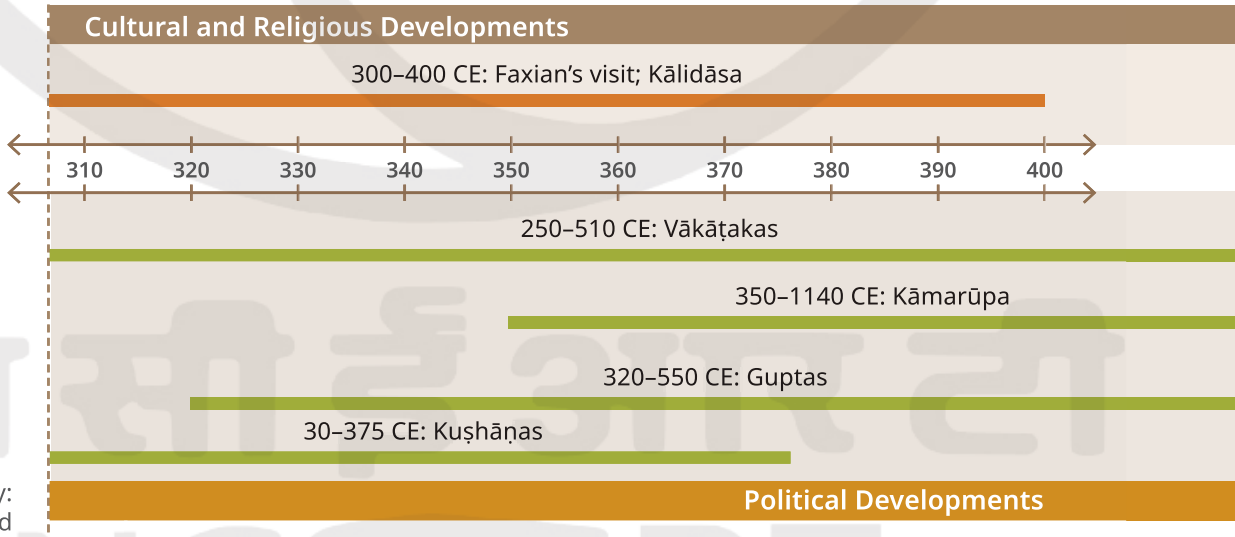
Texts such as the *Mahābhārata* and the *Arthaśhāstra* describe the king's duties as protecting people and ensuring justice. Why do you think it was important for rulers to protect people and ensure justice? What do these descriptions tell us about ideas of governance and the relationship between rulers and subjects during that period?

Council of Ministers

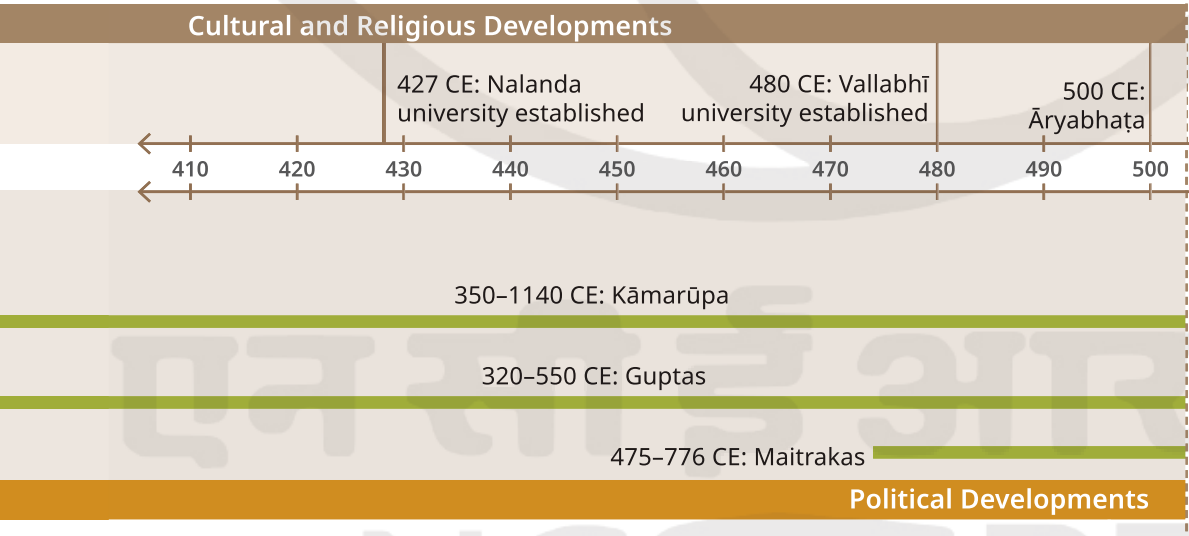
The state, was regarded as an organic whole composed of seven constituents. Kauṭilya identified the seven constituents (*Saptāṁga*) as follows—the king, the ministers, the territory, the forts, the treasury, the army, and the allies. The state can function effectively only if these constituents remain properly integrated.

LET'S RECALL

The *Arthaśhāstra* is one of the earliest and most systematic treatises on statecraft. It presents a detailed picture of administration, and emphasises the importance of training a king in the art of governance and public administration. The *Arthaśhāstra* states that "one wheel does not move the carriage". This statement captures the belief that effective governance requires cooperation and a well-organised administrative machinery. In fact, various literary and epigraphic sources from this period indicate that the king did



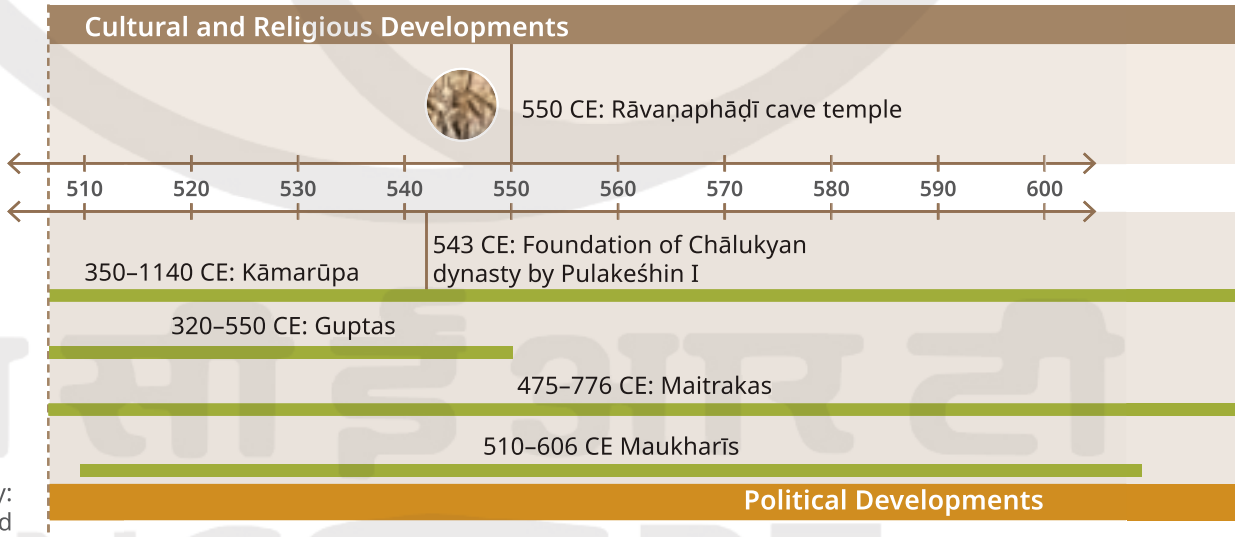
not rule alone but governed through a multi-layered administrative system. Central to this system was the council of ministers (*mantri–pariṣhad*), a small body of elder statesmen, whose primary role was to advise and support the king. The council of ministers generally included the treasurer, the chief tax collector, the chief legal advisor, and the commander-in-chief of the army. An Aśhokan inscription refers to decisions taken by the council of ministers during the emperor's absence, showing that, in exceptional circumstances, the council could take decisions independently in public interest.



DON'T MISS OUT

Fig. 5.5. Junagadh Rock Inscription, Gujarat

The Junagadh Rock Inscription near Girnar (Gujarat) is unique as it bears inscriptions of three rulers from different periods. The earliest inscriptions belong to the Mauryan emperor Aśhoka (3rd century BCE), whose Major Rock Edicts in Prakrit spread the message of *Dhamma* and moral governance. Later on, the Western Satrap ruler Rudradaman I (c. 150 CE) added a long Sanskrit inscription describing his military achievements and the repair of the Sudarshana Lake. Still later, the Gupta emperor Skandagupta (5th century CE) engraved another record on the same rock, noting the restoration of the lake after severe damage. Thus, this single rock inscription site preserves the records of the Maurya, Western Satrap, and Gupta dynasties, spanning about 700 years and providing valuable information about administration, public works, and political history in India.



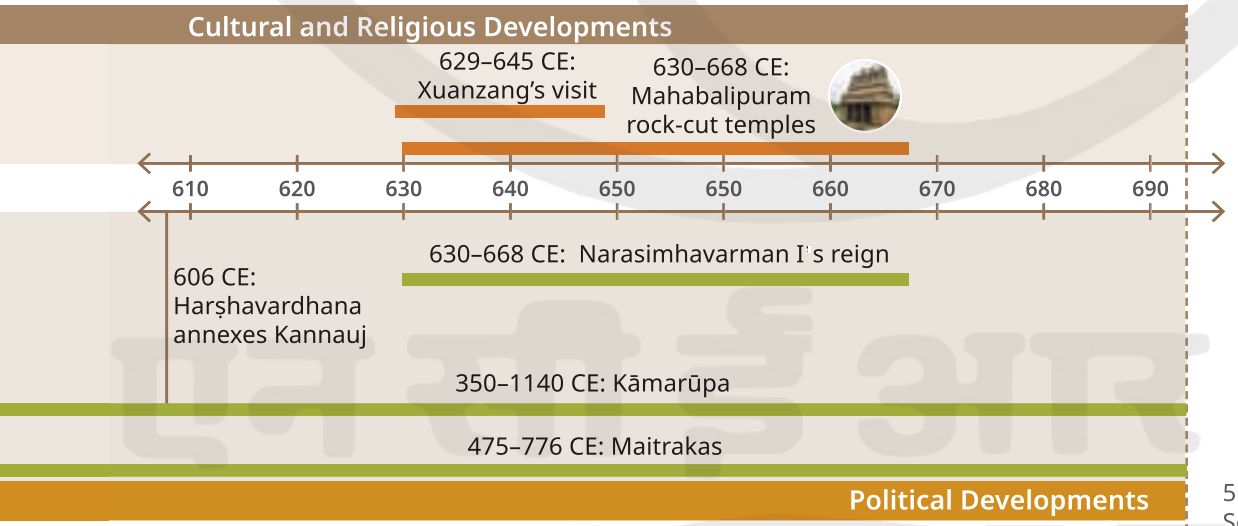
THINK ABOUT IT

Why do you think different rulers chose to record their inscriptions on the same stone instead of a new one? Discuss your answers with your classmates.

How were Empires Administered?

Early Indian kingdoms and empires were generally divided into provinces, which were further subdivided into divisions and districts. For instance, the Satavāhana empire comprised *āḥāras* (administrative divisions), each with its respective ministers (*amātyas*). Below the *āḥāras* were villages, each led by a village headman known as *grāmika*. While supreme authority rested with the king, the general administration was carried out by officers operating both at provincial and local levels. District governors or *pradeśhikas* were responsible for judicial and administrative functions. It is important to note that district officers often made decisions after consulting important residents such as bankers, caravan leaders, artisans, and scribes. In addition, cities had their own governors who were in charge of revenue collection and maintenance of law and order.

The period between approximately 300 CE and 800 CE was characterised by the decentralisation of power, as, for administrative convenience, the kingdom (*rājya*) was divided into several provinces, known as *bhuktis* in the north and *manḍalas* or *manḍalams* in the south. The provinces were further subdivided into divisions—*viṣhaya* or *bhoga* in the north and *koṭṭams* or *valanāḍu* in the south. Lower

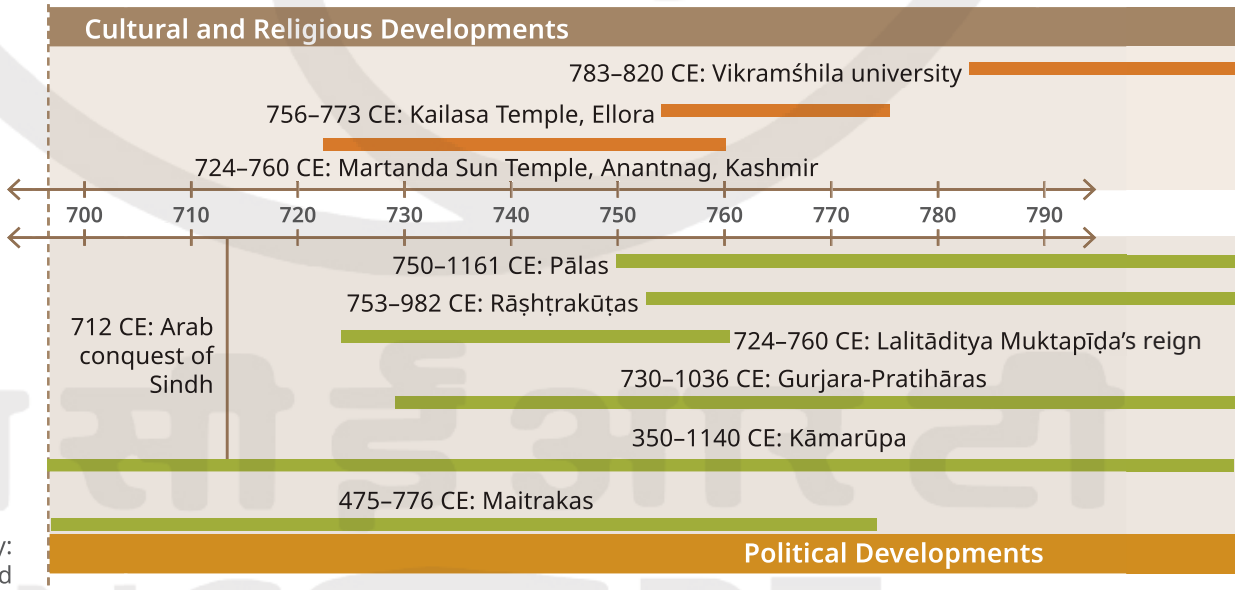


units of administration were the districts—*adhiṣṭhāna* or *paṭṭana* in the north and *nāḍu* in the south; groups of villages, that is, modern *tahsīl*, were called *vithis* in the north and *paṭṭalā* and *kūṛram* in southern Indian records. Finally, villages formed the lowest administrative units. To govern various administrative units, a large machinery was developed, consisting of provincial governors and district officers.

THINK ABOUT IT

How would dividing a kingdom into provinces, districts, and villages have helped rulers manage their empires? What similarities can you identify between these administrative divisions and the system of governance in India today?

Interestingly, the Guptas retained much of the earlier form of administration. So, as in Kauṭilya's *Arthaśhastra*, the *mantri* was the head of the civil administration, while other important officers included the commander-in-chief, the general, and the chief of the palace guards. A new 'minister of peace and war' (*sāndhivigrahika*) was introduced during the Gupta period. The *amātyas* of Kauṭilya's time also evolved into a broader category that included *kumārāmātyas*, who were administrators at the local or provincial level. Details of the district-level administration of the Gupta period are available from various records. For instance, the Damodarpur copper plates during the period of Kumaragupta I record that the district office comprised the following five members: the head district officer, the chief banker, the chief caravan trader, the chief artisan, and the chief of revenue



collection. Like other kingdoms of this period, the Pallavas (c. 275–897 CE) in the south also adopted a combination of centralised monarchy and decentralised local governance. While the king was the supreme head of state, the kingdom was divided into provinces, districts, taluks, and villages. One of the most striking features of the Pallavas was the tax-free land grants to villages. These were known as *Brahmadeya* villages.

It is further interesting to note how villages functioned relatively independently of the royal administration. For instance, the village assemblies had small committees known as *variyams* that managed specific tasks like irrigation, gardens, and temple management. Like their contemporaries, the Chālukyas (c. 543–753 CE) of

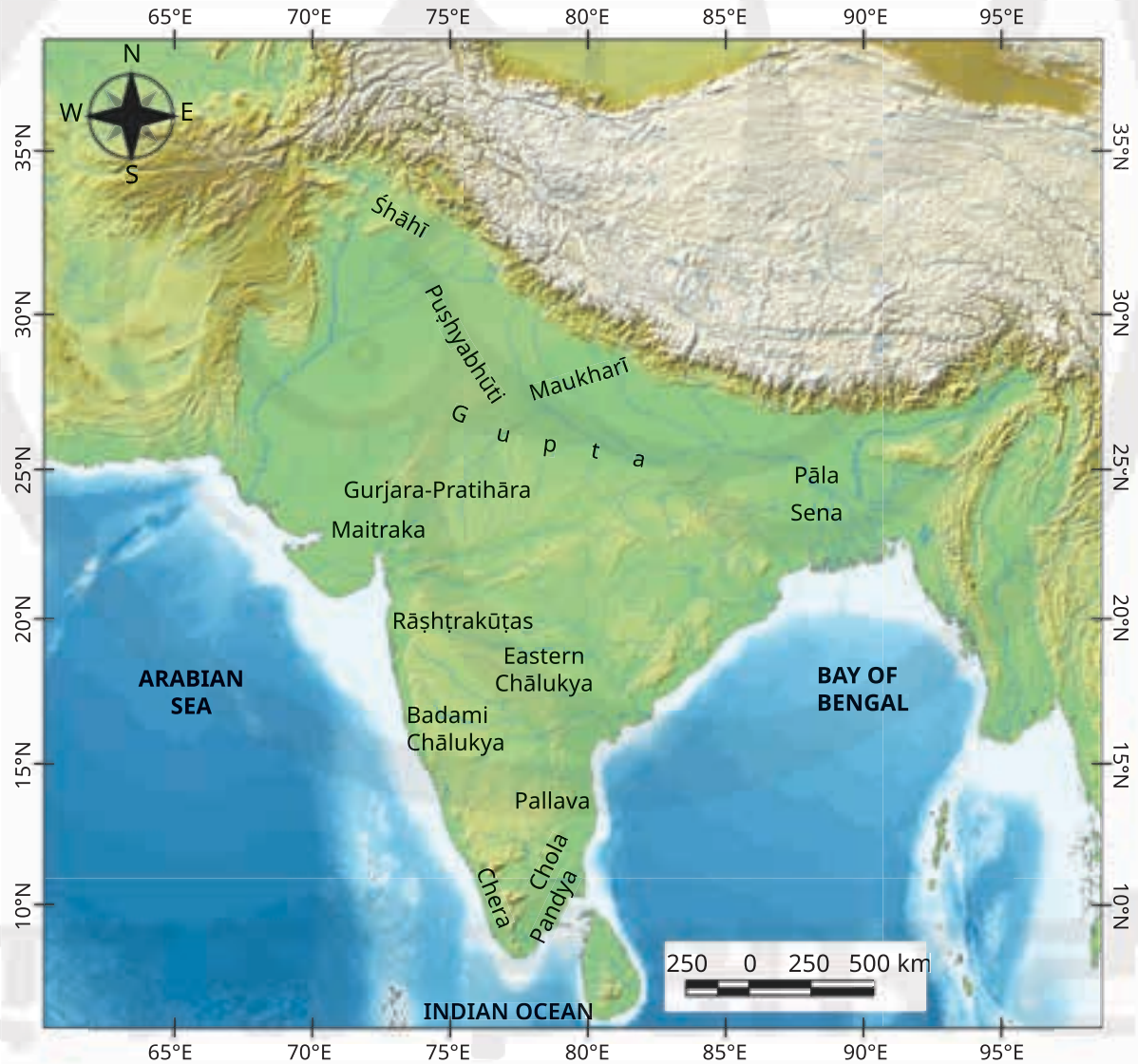
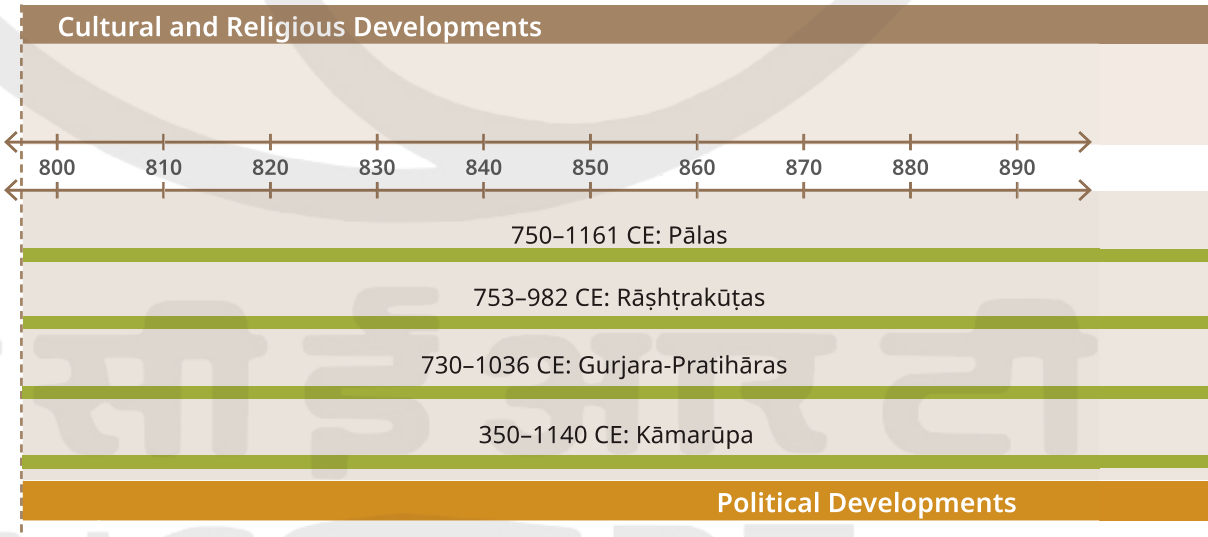


Fig. 5.6. Kingdoms and empires flourishing between 3rd and 10th century CE

Badami followed a monarchical system along with a decentralised administration. The king's duties and the kingdom's administrative divisions, along with the autonomous functioning of village assemblies, largely followed the same pattern discussed above. Thus, instead of the *Brahmadeya* villages of the Pallava dynasty, the Chālukyas gave land grants to Brahmin settlements known as *agrahārams*. Some of these *agrahārams*, such as those at Aihole and Badami, gradually developed into prominent centres of learning.

As you have read in previous grades, the Gurjara–Pratihāras ruled over large parts of Northern and Western India from about the 8th to 10th centuries CE. The main capital of this dynasty, Kannauj (in modern-day Uttar Pradesh), became a coveted site for various political kingdoms of the period. The 'struggle' to control Kannauj later came to be known as the 'tri-partite struggle' because of the involvement of three major powers, namely the Gurjara–Pratihāras, Pālas, and Rāṣhṭrakūṭas. The administrative systems of all three kingdoms followed the same pattern, that is a mix of monarchy and decentralised administrative units comprising provinces, districts and villages. In all cases, the village remained the smallest administrative unit and was largely self-reliant and autonomous in major practical functions, including infrastructure, social welfare, and education.

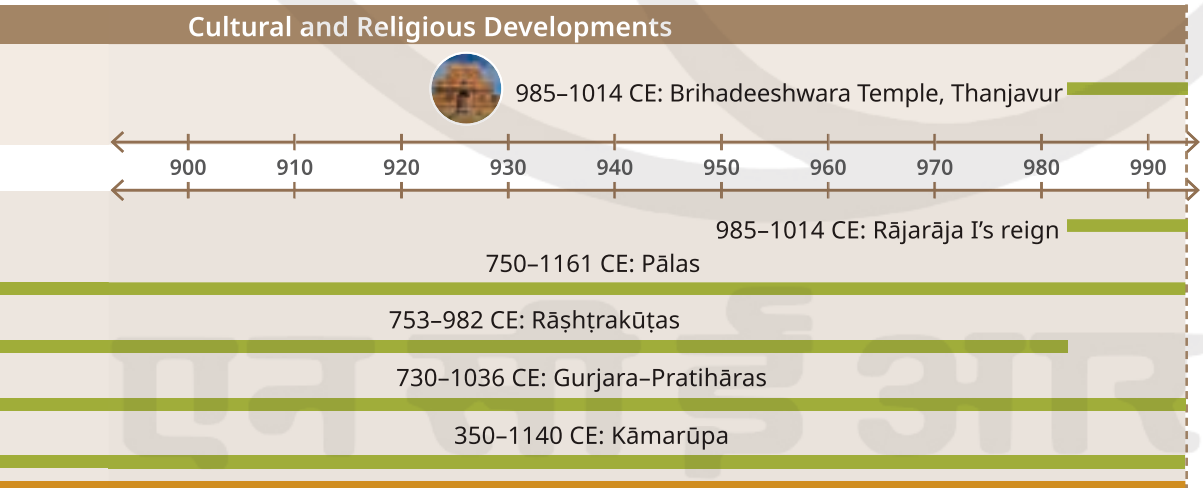
Remember meeting the early Cholas, a powerful kingdom of southern India, and the famous King Karikala in your previous grades. Now, we will explore the later Cholas, also known as the imperial Cholas (9th–11th century CE), who were noted for their efficient administrative and revenue systems. Like other empires of the period, the Chola empire was divided into *manḍalams* (provinces), which were further subdivided into *valanāḍus* (districts), *nāḍus* (groups of villages), and



finally *Urs* (individual villages). As usual, the village was the smallest unit within a district. Village councils or assemblies played an important role in settling disputes and managing local affairs. As in other parts of India, the village assemblies of the Chola empire were responsible for all local administrative functions, including revenue collection, land management, irrigation, road construction, record maintenance, and so on. Thus, the village assemblies functioned as independent, self-reliant institutions and were not dependent on the government for patronage.

DON'T MISS OUT

The Uttaramerur inscription of Parantaka I (10th century) of the Chola period provides a vivid description of village governance. Located in the Vaikuṇṭha Perumal Temple in Kanchipuram district of Tamil Nadu, these Tamil inscriptions furnish details about the functioning of village assemblies, and inform us about the *Kudavolai*, or the 'ballot pot' system used in village elections. In this system, the names of eligible candidates were written on palm leaves and placed inside a large pot. During a public gathering, a young child was asked to draw the leaves, one by one, to select representatives for the village assembly and its various committees. To ensure fairness, the draw took place in full view of the community, often at a temple. The elected members were then divided into specialised committees (*variyams*), each entrusted with important village responsibilities, such as managing irrigation (the tank committee), administering justice, and collecting taxes.

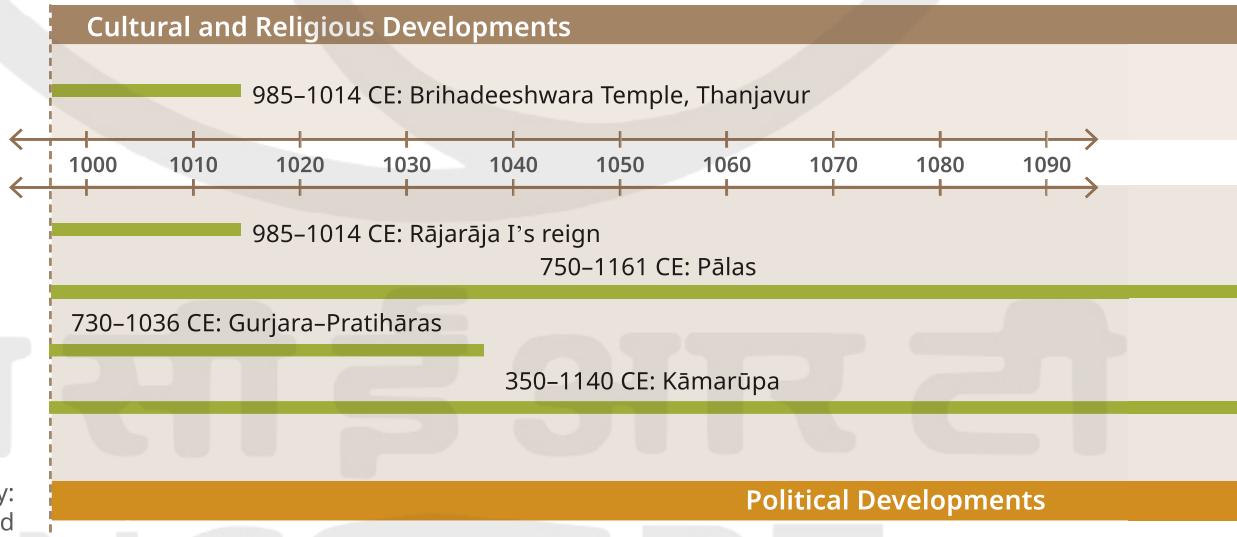


Ethics: The Foundation of Law and Life

Ethics form the basis of law and life, making it important to explore the roots of ethical thought in Indian history. Some of the earliest Indian texts, such as the Vedas and the epics, discuss questions of reality, right conduct, the origin of all things, and the nature of the universe. Vedic texts describe how life should be lived ideally. The *Bhagavada Gītā* emphasises knowledge, faith, action, virtue and an ethical way of life.

India has a long tradition of ethical thought, and these moral principles often guided both state and society. One important principle through which reality is understood is *samatva*, or the principle of sameness. According to this principle, all bodies are made of the same matter, and all forms of consciousness are manifestations of one supreme consciousness. The Vedas describe this consciousness as *satya* (real, true) and *ṛita* (right), as well as and "the invisible origin of all things". The *Mahābhārata* also includes characters from all *varṇas* who, despite their differences, repeatedly uphold the principle of *samatva*. The epics, often, critique discrimination and present goodness as non-discriminatory. They emphasise the ideal of a good person and ruler "as one who works for the welfare of all beings."

Ṛita is another concept that is described in the *Ṛig Veda* as an all pervading cosmic order that represents harmony and balance in nature, and in human society. It is seen as the principle that regulates the forces of nature, upholds moral values, and represents the underlying order that maintains balance in the universe.

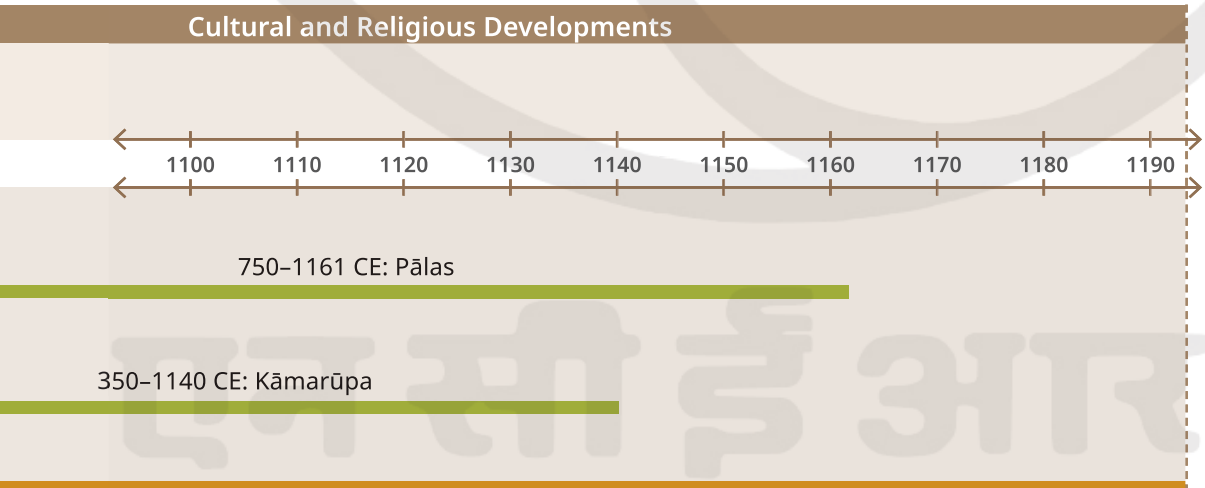


The idea of justice is closely linked to *dharma*. Here, *dharma* does not mean religion; rather, it refers to duty, obligation, righteousness, and moral conduct. It represents a way of life in which ethical values are central and individuals are expected to perform their duties according to their roles and responsibilities in society. In Buddhism, the term 'dhamma'—the Pāli equivalent of the Sanskrit word *dharma*—is used to express similar ethical principles.

DON'T MISS OUT

The word 'dharma' is derived from the Sanskrit root *dhri*, which is also the root of *dharati* (the earth). In the *Mahābhārata*, Bhishma says that *dharma* "is that which upholds beings; whatever upholds all beings is *dharma*." In the sense of the law of existence, it is also said that "the *dharma* of iron is to sink and of wood is to float."

The connection between politics and ethics is further evident in historical records from different periods, from the Mauryas to the Cholas. For instance, Aśhoka's edicts promoted *dhamma* by emphasising moral conduct, respect within the family, ethical behaviour in everyday life, non-violence, and compassion. Evidence of ethical principles in governance continued into later periods. The 10th century CE Uttaramerur inscription, for instance, specifies that candidates for village assembly elections should have "honest earnings" and be "pure" of mind. Literary works from different periods also highlight the importance of moral conduct in public life. Kāmandaka's *Nītisāra* and Bāṇabhaṭa's *Kādambarī*—widely celebrated as one of the world's first novels—contain reflections



and advice on kingship and governance, reinforcing the enduring connection between ethics and political authority in Indian history.

Social Structures and Everyday Life

Varṇa and *Jāti*

In previous grades, we learned about the *varṇa* system and its fourfold structure—*brāhmaṇas, kṣhatriyas, vaiśhyas,* and *śhūdras*. Early Vedic texts do not indicate any fixed social status strictly based on birth. Instead, it is generally agreed that social identity was shaped by several complex and overlapping factors, including ethnicity, subgroups, geographic region, village affiliation, *gotra* (a kinship-based subgroup), language, and, especially occupation. While this system distinguished individuals and communities from one another, it also connected them through shared social, economic, and cultural relationships. At this stage, occupations remained flexible and mobile, and the idea of strict hereditary occupations had not yet become firmly established. Evidence of this flexibility is often drawn from a verse of the *Ṛig Veda* in which the seer refers to occupational diversity within a single family.

Kārurahaṁ tato bhiṣhagupalaprakṣhiṇī nanā ।
Nānādhiyo vasūyavo'nu gā iva tasthimendrāyendo pari srava ।।

– *Ṛig Veda* 9.112.3

I am a poet;
my father is a physician,
my mother is a grinder of corn;
having various occupation, desiring riches we remain (in the world) like cattle (in the stalls).

LET'S EXPLORE

Read the verse given above and discuss it in groups. As you do so, think like historians—look for clues in the source and use them to understand what life may have been like.

While discussing, keep these questions in mind:

→ What does the source tell us? (evidence)

→ What can we understand from it? (interpretation)

→ What might it not tell us? (limits of the source)

Now answer the following:

1. What occupations are mentioned in the family described in the verse? What does this indicate about the nature of occupations in Vedic society?
2. How does the above verse challenge the idea that social status and occupation were fixed by birth?
3. What different occupations do you find in contemporary society?

After the discussion, compare your group's responses with those of another group and note the similarities and differences in interpretation. Did all groups interpret the source in the same way? What does this tell us about how historians use evidence to understand the past?

The earliest reference to the four social categories, understood by historians as *varṇa*, appears in the *Puruṣhasūkta*, a hymn in Book 10 of the *Ṛig Veda*. Over a period of time, these four social categories (*varṇas*) came to be associated with specific roles and tasks. The *brāhmaṇas* were mainly expected to study and teach the Vedas and other sacred texts, perform and officiate *yajñas*, and give and receive *dāna* (gifts). Rajanya (*Kṣhatriyas*) were tasked with warfare, protecting people, and administering justice. They were also expected to study the scriptures, sponsor yajñas, make donations, and uphold social order. *Vaiśhyas* were associated with economic activities, such as agriculture, pastoralism, and trade, while also participating in scriptural study, sacrificial rituals, and acts of charity. *Śhūdras* were expected to assist the other *varṇas*. However, practically, the *Śhūdras* were also engaged in various economic activities such as agriculture, animal husbandry, trade, and arts and crafts.

Thus, the concept of *varṇa* was based on a system of values in which knowledge was given the highest status, followed by political power and wealth. Therefore, it is important to remember that the division of the four *varṇas* was a functional one. For instance, the Buddhist text *Sutta Nipāta* states that, "No *brāhmaṇa* is such by birth. No outcaste is such by birth but only by his deeds. A *brāhmaṇa* is such by his deeds." Over time, however, this flexibility in social roles gradually got reduced.

Gradually, a distinct social structure called *jāti* emerged due to various factors, including intermarriage among the *varṇas*, migrating communities becoming **endogamous**, and territorial differences. While the number of *varṇas* was fixed at four, there

Endogamy: The practice of marrying within one's own social group, community, clan or tribe. It is a social custom in which people are expected to choose marriage partners from within the same group.

was no restriction on the number of *jātis*. As new social groups and occupations developed, the number of *jātis* continued to grow.

Social Mobility

Varṇa and *jāti* were not always rigid social categories, and there was considerable social mobility within and across these categories. For example, several rulers came from diverse social backgrounds including the Nandas, Mauryas, Śhuṅgas, Satavāhanas, Vākāṭakas, Guptas, and Puṣhyabhūtis.

There are also instances of occupational mobility within social groups. For instance, the Mandsaur Stone Inscription (473 CE) mentions a guild of silk weavers who migrated from Lata in Gujarat to Dashapura in Madhya Pradesh during the Gupta period. This guild was proficient not just in weaving but also in archery, astrology, and other occupations. Likewise, there are several inscriptions, such as the Karitalai copper-plate inscriptions of Mahārāja Jayanātha (late 5th century CE), which record *brāhmaṇas* as land managers.

Fig. 5.7. Karitalai copper plate of Mahārāja Jayanātha

Sangam literature like the *Tolkappiyam* refers to four-fold division of society and mentions different groups such as *Arasar* (kings), *Vanigar* (traders/ merchants), and *Velar* (farmers). We also find references to *Antanar* (*brāhmaṇas*), who were often patronised by ruling elites and the kings. However, the *varṇa* classification mentioned in the *Tolkappiyam* seems to be premised on occupation, and the four-fold *varṇa* classification was marked by fluidity. For instance, the *Pattinappalai* describes a prosperous, dynamic, trade-oriented society where different occupational groups such as merchants, salt-makers, fishermen, artisans, agriculturists, and warriors, interacted actively. This suggests that society was organised more on the basis of occupation and economic functions than on a rigid *varṇa* classification.

Family and Society

In Vedic society, the *kula* (family) formed the smallest and the basic social unit. It was connected to the larger political structure through the village, or *grāma*, which consisted of several families.

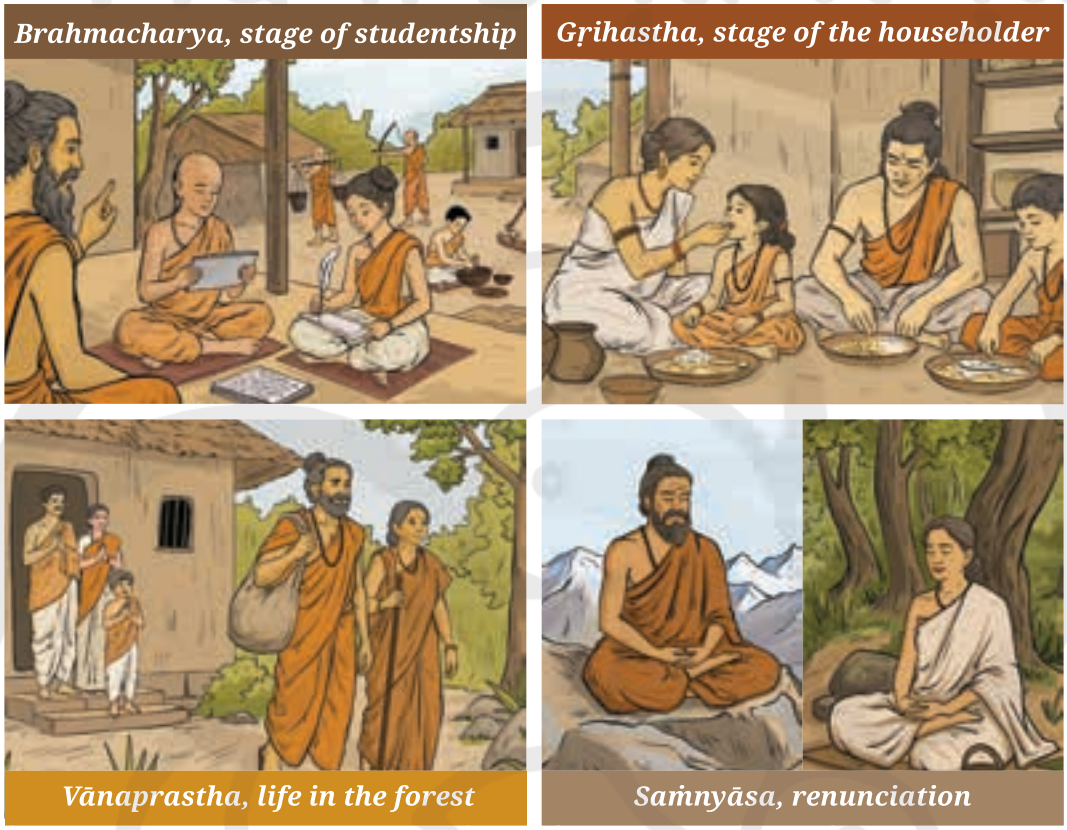


Fig. 5.8. The four āśhramas

A group of *grāmas* together formed a *viśha*, headed by a *viśhapati*. Above the *viśha* was the *jana*, with the *rājā* serving as the chief protector of the *jana*, or the people. In this way, the family or *kula* was inseparable from the *jana*. During the later Vedic period, the term *kula* came to denote a household comprising several members bound by kinship. The concept of *gotra* referred to a **patrilineal** lineage or clan traced to a common ancestor, traditionally linked to a Vedic sage (*ṛiṣhi*). *Gotra* affiliation often played an important role in regulating marriage practices as well. Everyone was expected to perform the duties appropriate to their *varṇa* and stage of life (*āśhrama*). This division of one's life into the four *āśhramas* (Fig 5.8) and their respective *dharmas*, in principle, provides fulfilment to the person in their social, moral, and spiritual aspects, which would lead to harmony and balance in society. All the stages of life were accompanied by numerous rituals and ceremonies, particularly the *ṣhoḍaśha saṁskāras*, or the 'sixteen rites of passage'. These rites marked significant moments throughout an individual's life, including birth; initiation into education; completion of studies; engagement; marriage; the birth of children; the marriage of children, death rites for parents and their memorial ceremonies; and, finally, one's own death.

Patrilineal: A social system wherein family identity and inheritance, are passed down strictly through the male line.

Apart from the *āśhramas*, the concept of the four goals of life or *puruṣhārthas* was also significant. These were (1) righteousness (*dharma*); (2) material well-being (*artha*); (3) fulfilment of desires (*kāma*); and (4) liberation from all worldly ties (*mokṣha*). The fulfilment of these four ends of life is important for every human being. In this framework, *dharma* and *mokṣha* hold particular significance from an ethical point of view, as they provide direction and purpose to human life. For instance, the pursuit of wealth (*artha*) is a desirable objective, provided it is guided by *dharma*, that is, aligned with the welfare of society.

Role of Women

The Vedic period is often described as a period during which women held a high and respectful position in society. Women participated in scholarly learning and, in certain contexts, performed rituals alongside their male counterparts. Textual references also indicate that women took part in activities such as chariot races and attended social gatherings, including the *sabhā*. Several hymns of the *Ṛig Veda* are traditionally attributed to women sages—most notably Apālā, Viśhvavārā, Ghoṣhā, and Lopāmudrā—highlighting women's active engagement in intellectual and religious life. In addition, goddesses such as Uṣha, the goddess of dawn, and Aditi, the mother of the gods, occupied significant and revered positions in Vedic culture. The tradition of respect for women is evident in texts composed after the Vedic period, too. For instance, *Manu-smṛiti* mentions:

Yatra nāryastu pūjyante ramante tatra devatāḥ ।
Yatraitāstu na pūjyante sarvās tatrāphalāḥ kriyāḥ ।।
।। *Manu-Smṛiti* 3.56 ।।

"Where women, verily, are honoured, there gods rejoice; where, however, they are not honoured, there all sacred rites prove fruitless."

Over time, the position and roles of women fluctuated, even declined, as social and political conditions changed. However, there are many examples of women continuing to contribute to household management, agriculture, crafts, and religious practices.

Literary works of the Gupta–Vākāṭaka period (around the 4th to 6th centuries CE) feature female characters who are depicted as highly educated and skilled in the arts. Other historical records also mention queens and royal women who played important roles in governance and religious patronage. For example, as discussed in the Grade 7, Part I textbook, Prabhāvatī Gupta, daughter of the Gupta ruler Chandragupta II, ruled as a regent in the Vākāṭaka kingdom and issued land grants in her own name. Women also appear as donors on several **votive inscriptions** from the post-Maurya period.

Votive inscription: Text engraved on stone, metal, or other materials, dedicating a gift, sculpture, or structure to a deity or sacred place.

Sangam literature similarly portrays women as active participants in society and the economy. They performed important agrarian tasks such as planting, weeding, husking, winnowing paddy, and were also involved in cattle rearing, spinning, fishing, salt production, and garland selling. Sangam texts further mention influential women such as the celebrated poetesses Avvaiyar and Vennikuyattiyar (woman potter). Similarly the women bards and dancers quite like their male counterparts contributed to the cultural, literary, and social roles of women in early historic southern India. Later, during the Chola period, inscriptions record the activities of royal women such as Sembiyan Mahādevī, who supported temple building and religious institutions.

Religious Life and the Emergence of Bhakti

The Vedic pantheon did not follow a rigid hierarchical structure, and different deities are praised as supreme in different hymns of the Vedas. These deities were invoked through prayers and sacrificial rituals (*yajñas*), which involved making offerings, most often to the sacred fire. The faith of the Vedic people was intertwined with the worship of nature, as each Vedic deity was associated with an element of nature, such as the sun, rain, fire, earth, dawn, etc. Some of these ancient practices continue today in the form of festivals celebrated across India, for example, the sun worship during Chhath and on Makar Sankranti. Such practices are often understood in the context of early societies' dependence on nature for survival. As a result, nature was viewed not merely as a resource, but as sacred and powerful. The Vedic worldview, therefore, reflected an early sense of respect for, and responsibility towards, nature.

DON'T MISS OUT

Around the middle of the first millennium BCE, a discernible trend of renunciants emerged. These individuals advocated non-attachment to material comforts and social relationships, choosing to live as ascetics and wanderers, rather than as householders. Contemporary sources refer to them by different terms, such as *parivrājaka* (wanderer), *bhikṣhu* (one who lives by begging alms), or *śhramaṇa* (one who strives). While Gautama Buddha and Mahāvīra emerged as influential thinkers of this period, the idea of renunciation was already present in the Vedic tradition. As discussed earlier, amongst the four stages (*āśhrama*) of life, *vānaprastha* and *saṁnyāsa* clearly have a renunciatory connotation.

Over time, the Vedic religious tradition evolved towards forms of worship centred on personal deities such as Viṣhṇu, Śhiva, and Śhakti, laying the foundations for later devotional practices. One such practice was 'Bhakti', a path that offered a direct connection with the gods without the need for elaborate rituals prescribed in the Vedas, and which was accessible to all, regardless of class or gender.

Bhakti has a long tradition in India, with early references found in texts such as the *Mahābhārata*. However, the organised and widespread devotional set of practices known as the Bhakti tradition gained prominence in the 6th century Tamil region through the devotional activities of the Āḻvārs and Nāyanmārs. The Āḻvārs were twelve saint-poets who composed hymns in praise of Lord Viṣhṇu. Alongside the Āḻvārs were the sixty-three Nāyanmārs, the Śhaiva saint-poets, who composed hymns in praise of Lord Śhiva. Together, the Āḻvārs and Nāyanmārs created a large body of Tamil Bhakti literature, which represents one of the most significant cultural and religious developments of this period. You will learn more about the Bhakti tradition in the second part of the Grade 9 textbook.

The Quest for Knowledge

In early India, education was an integral part of life, serving a holistic purpose. Truth, patience, regularity, humility, control of senses, purity of self (*sattvaśhuddhi*), cognition of the underlying unity of life, nature and environment, and reverence for all beings were the inner values cultivated by Indian education. Pupils were trained to live in accordance with *dharma*—the guiding principle for

Fig. 5.9. Representative illustration of a Gurukula

the individual, the family, and society. *Dharma* required everyone, including students, to fulfil their duties towards parents, teachers, and the gods. Good character and moral conduct were seen as the foundation of society.

Indian education also imparted practical skills across a wide range of subjects. Students studied the Vedas, along with grammar, logic, philosophy, ethics, mathematics, science, medicine, and astronomy. They were also trained in various arts and crafts, including music, dance, painting, physical education, and martial arts such as archery. Alongside their studies, students practised yoga, meditation, and service to the guru, making education a complete preparation for life, not just a path to a career. The teacher–student relationship (*guru-śhiṣhya paramparā*) was regarded as sacred. The teacher (*guru* or *āchārya*) was highly respected and seen as a guide who helped students move from the darkness of ignorance to the light of knowledge. The teacher's home served as the centre of the *gurukula*, and the relationship between the teacher and student was close and mutually supportive, with the student treated as a member of the teacher's family. Students living in the *gurukula* followed a

disciplined life marked by self-control, obedience, and devotion. Education was treated as a critical part of life, which was imparted holistically.

LET'S EXPLORE

Compare your school life with the life of a student in a *gurukula* in early India. Think about aspects such as daily routine, subjects studied, relationship with teachers, discipline, and living arrangements. What advantages and challenges do you think each system of education might have for students?

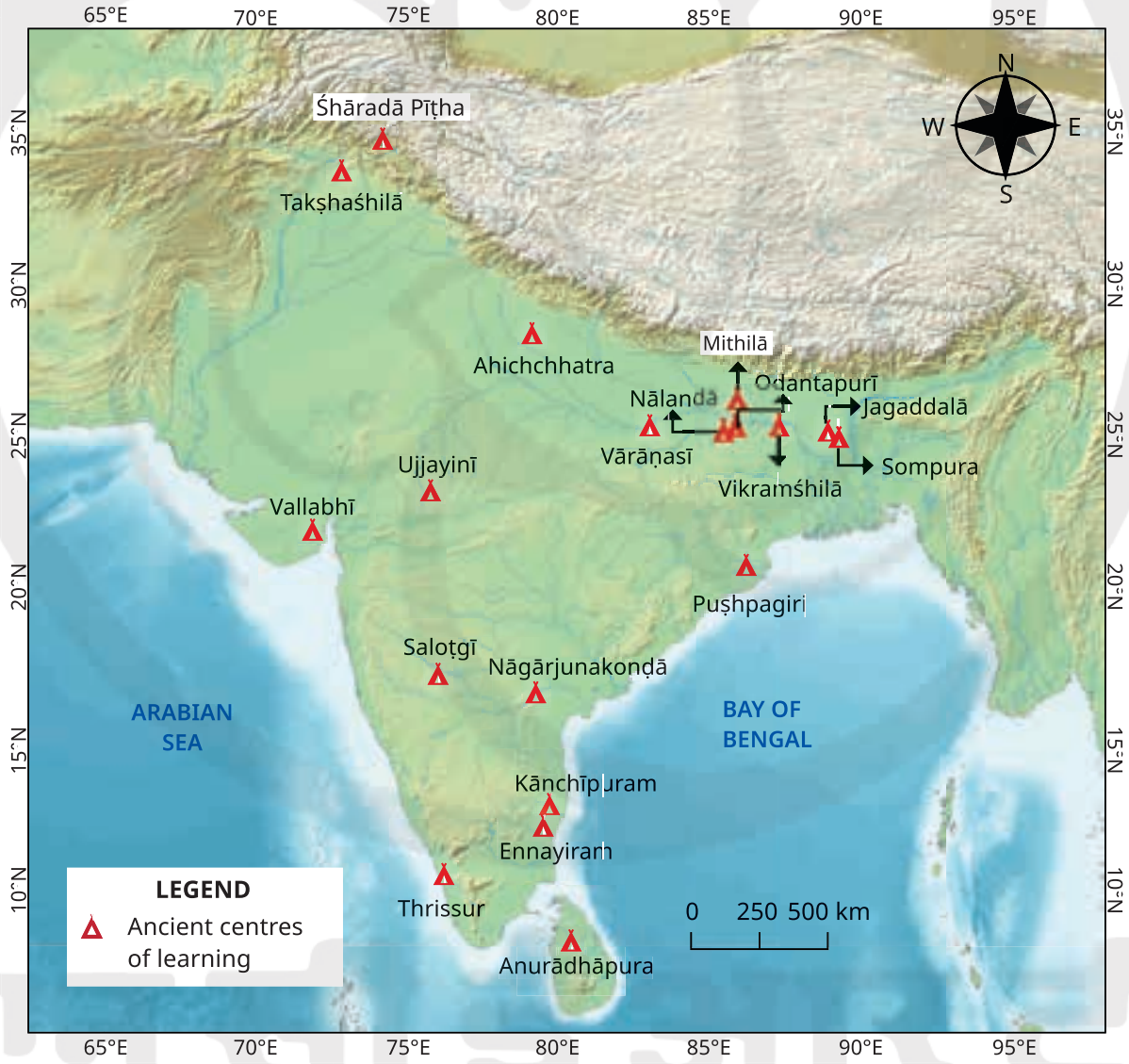


Fig. 5.10. Some of the prominent universities and advanced centres of learning in early India

Fig. 5.11. Panoramic view of the ruins of Takshashila. It was a large campus with very well-organised urban systems, including various types of housing, drainage, and waste management.

India's long tradition of learning and intellectual activity is reflected in the establishment of several important centres of education before the second millennium CE. Historical and literary sources indicate that during this period, institutions of higher learning emerged across the Indian subcontinent, attracting students from both India and other regions.

Over several millennia, India produced a vast and diverse body of literature spanning subjects, such as philosophy, grammar, medicine, astronomy, mathematics, culinary practices, agriculture, architecture, and various aspects of everyday life. Notably, despite the rise and fall of kingdoms and political changes over time, many of these knowledge traditions and practices persisted.

Literary Heritage of Early India

Foundational Texts for Sanskrit Grammar

Pāṇini's *Aṣhṭādhyāyī*, Piṅgala's *Chhandaśhāstra*, Patañjali's *Mahābhāṣhya*

***Smṛiti* Literature–*Dharma*, Law and Ethics**

Manu-smṛiti, Yājñavalkya Smṛiti, Nārada Smṛiti, Viṣhṇu Smṛiti

Classical Works on Medicine

Charakasamhitā and *Suśhrutasamhitā*

Sanskrit poetry and *Kāvya*

Kālidāsa's *Raghuvaṃśha* and *Kumārasambhava*

Tamil Literature

Tiruvalluvar's *Tirukkural*; the Tamil epics *Silappadikāram* and *Maṇimēkalai*; the vast body of Sangam texts covering a wide range of themes including love (*akam*), war or public life (*puram*), political organisation, social structures, and economic activities

Economy

Agriculture and land revenue

The Mauryan state developed an elaborate administrative system to regulate and supervise economic activities. Agricultural land within villages was divided into individual holdings, while common resources such as pastures were maintained for grazing cattle. Villages also included groves on their outskirts. The state encouraged agricultural expansion by clearing forests, although certain categories of forests were protected by law. The basic tax on land was a fixed proportion of the produce, generally one-sixth. For the purpose of revenue assessment, land was classified into different categories. Kauṭilya provides a detailed description of various types of village land, including cultivated land, wasteland or fallow land, high and dry land, sown fields, and groves. A wide range of crops were cultivated in different regions. These included several varieties of rice, pulses, wheat, linseed, mustard, saffron, sugarcane, vegetables, and fruits.

The economic foundations laid during the Mauryan period continued to develop in the post-Mauryan period. Agriculture remained the backbone of the economy, sustaining both rural livelihoods and state revenue. The *Milindapañho*, a Buddhist text traditionally attributed to Nāgasena, describes eight stages of agricultural operations, ranging from preparing and weeding the fields to harvesting and winnowing crops, indicating a detailed understanding of farming practices.

During this period, the expansion of agriculture in the Deccan likely contributed to increased cotton cultivation, as the region's black soil was particularly suitable for this crop. The *Amarakoṣha*, a standard Sanskrit lexicon, includes a special chapter on forest, crops, plants, and manure. Agricultural life in southern India is further documented in the Sangam literature, which highlights the land's fertility and the abundance of agricultural produce. Sangam texts refer to the Chera region as rich in commodities such as jackfruit, pepper, and turmeric, and vividly describe the cultivation of crops such as ragi and sugarcane.

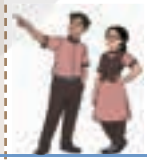
Irrigation

Agriculture was closely dependent on irrigation, and considerable importance was placed on the construction and maintenance of structures such as reservoirs, canals, and dams. You may remember

that earlier in this chapter, we discussed the Junagadh inscription of Rudradaman I (see Fig. 5.5). This inscription records that Puṣhyagupta, a governor appointed by Chandragupta Maurya, constructed a dam on Sudarshana Lake near Girnar in Saurāṣhṭra (or the Kathiawad region in Gujarat). This inscription highlights the active role of the Mauryan state in developing irrigation infrastructure. Facilitation of agriculture continued to be a major preoccupation of the state because it was one of the major sources of revenue.

LET'S RECALL

The Cholas were builders of irrigation systems that included canals, lakes, and tanks with connecting channels. Do you remember reading in your previous grades about the Grand Anicut (Kallanai) built by Karikala Chola? Such irrigation structures helped store and distribute water, supported agriculture, and encouraged the growth of settlements. The Grand Anicut continued to be used and repaired by later rulers and administrations over many centuries, showing the lasting importance of irrigation works undertaken by Cholas. Remarkably, it remains in use even today.

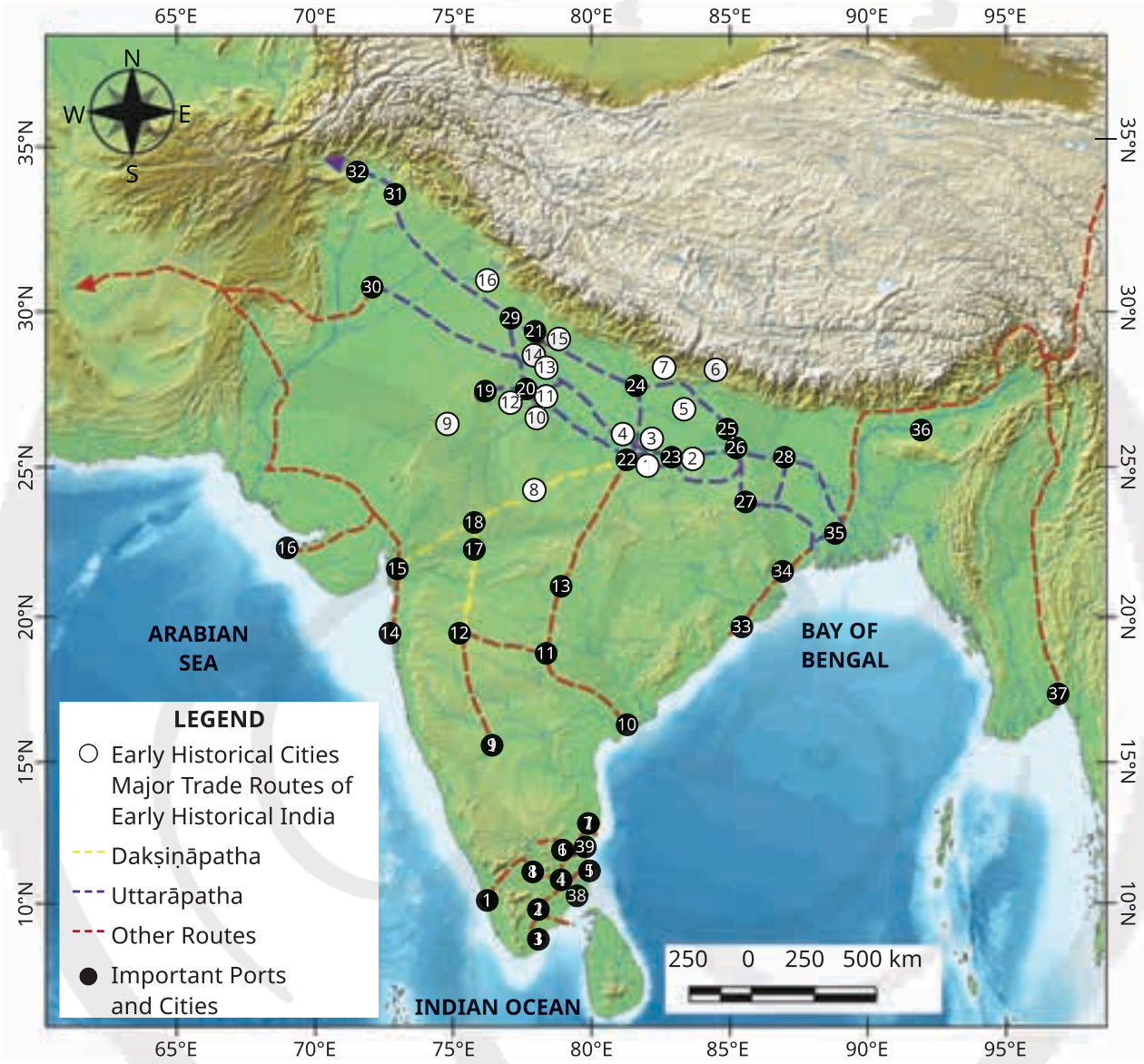


THINK ABOUT IT

Why do you think irrigational structures like dams and canals were considered so important that their construction was recorded in inscriptions?

Trade: Trade Routes and Ports

One of the most significant features of economic development during this period was the expansion of trade and commerce. The emergence of well-structured states provided the necessary infrastructure and conditions for trade to flourish. The *Arthaśhāstra* identifies trade as one of the major economic activities and notes that Magadha traded textiles, gems, coral, pearls, metals, and minerals with various parts of northern, central, and southern India. Salt was another important commodity, and its production was strictly regulated by the state. The state also ensured the safety of trade routes and took measures to prevent the adulteration of goods and protect consumers from unfair practices. As we learnt in previous grades, trade networks within the Indian subcontinent, as well as those extending beyond it, had been developing since the times of the Harappans. By around the 6th century BCE, two major land routes—*Dakṣhiṇāpatha* and



1. Muziris
2. Madurai
3. Korkāī
4. Uraiyūr
5. Puhār
6. Kovalūr
7. Kāñchīpuram
8. Karūr
9. Suvarṇagiri
10. Masulipaṭnam
11. Potanā
12. Pratiṣhṭhāna
13. Bhojakaṭa
14. Sopārā
15. Bhārukachchha
16. Dwārkā
17. Māhiṣhmatī
18. Ujjayinī
19. Virāṭa
20. Mathurā
21. Hastināpura
22. Kauśhāmbī
23. Kāśhī
24. Śhrāvastī
25. Vaiśhālī
26. Pāṭaliputra
27. Rājagṛiha
28. Champā
29. Thuna
30. Shibipura
31. Takṣhaśhilā
32. Puṣhkalāvatī
33. Kalinganagara
34. Tāmralipti
35. Chandraketugarh
36. Prāgjyotiṣhapura
37. Thāṭon
38. Kāveripaṭṭinam
39. Arikameḍu

Ⓘ Bhīṭā
② Prahalādpura
③ Jhūsī
④ Śhringaverapura
⑤ Sohgaurā
⑥ Kuśhīnārā
⑦ Piprāhwā
⑧ Vidiśhā
⑨ Sāmbhar
⑩ Baṭeśhwara
⑪ Sonkha
⑫ Noha
⑬ Atranjīkheḍā
⑭ Jakheḍā
⑮ Ahichchhatra
⑯ Rūpaḍ

Fig. 5.12. Major trade routes of early historical India

Uttarāpatha—had emerged and were later maintained and expanded by successive dynasties. Over time, these routes served as important trans-regional networks, linking different parts of the subcontinent. They facilitated the movement of goods, people, and ideas, connecting inland regions with coastal ports and thereby integrating overland and maritime trade systems.

Indian ports also played a significant role in facilitating trade and commerce, attracting both Indian and foreign traders. Trade links between the Harappans and the Mesopotamians already existed, involving ports along the western coast of India, the Persian Gulf, and other regions. Over time, these networks expanded as major ports such as Muziris, Kāveripaṭṭinam, Arikameḍu, and Masulipaṭnam, developed and grew. [*Note: Some of these ports have been marked on the map (Fig. 5.12) to help you locate them geographically.*] Maritime trade utilised both coastal routes and long-distance overseas routes across the Indian Ocean. By the early centuries of the Common Era, India's trade with Rome had expanded significantly, conducted through both sea routes and overland connections via Central Asia. We will learn more about India's trade interactions with different regions in a chapter titled 'India and the World – 1' in part 2 of this textbook.

LET'S RECALL

In previous grades, we studied the *Silappadikāram*, which mentions two important routes in the Tamil region that also extended into northern India. The first route linked Kanchipuram to the famous port of Poompuhar (Kaveripattinam), and the second connected Kanchipuram to Kanyakumari.

Guilds

The early Indian economy was supported by collective organisations of traders, artisans, and merchants known as guilds (*śhreṇīs*), which were associations of people engaged in the same profession, craft, or occupation. These guilds played a significant role in the expansion of trade and commerce, especially after the rise of territorial states in the form of the *mahājanapadas* (6th century BCE). Metallic coins, beginning with silver punch-marked coins, also came into circulation during this period. The Jātaka literature refers to eighteen types of guilds, indicating that they were well-established and influential institutions in the economic life of early India. Guilds regulated the quality of goods and often fixed prices to protect both artisans and consumers.

The conduct of their members was supervised through guild courts, which enforced professional standards and discipline. In addition, guilds functioned as banks, financiers, and trustees.

DON'T MISS OUT

Fig. 5.13. Nashik cave inscription

Guilds as Financial Institutions

The Nāśhik cave inscription (2nd century CE) of the Śhaka king Nahapāna and his son-in-law, Uśhavadāta, sheds light on the economic role of guilds in early India. It records that monetary donations were deposited with professional guilds (*śhreṇīs*), which were obligated to pay a fixed rate of interest on these endowments. The interest generated was used to maintain Buddhist monasteries and caves. This indicates that guilds were not merely associations of craftspersons and traders but also functioned as banking and credit institutions, capable of securely investing funds and generating a steady income.

The economic prosperity achieved during the pre-Gupta period laid a strong foundation for the cultural and economic developments of later periods. Industries continued to expand, supported by the availability of raw materials and the skill and enterprise of artisans and craftspersons. Literary and archaeological sources refer to a wide variety of textiles, including silk, cotton, wool, and linen. Diverse weaving techniques were in use, and centres such as Mathurā, Kāśhī, and Kāmarūpa emerged as important hubs of textile production. References to guilds of silk weavers further indicate the organised nature of the textile industry. Merchants of various categories figure prominently in literary and epigraphical sources, highlighting the growing importance of trade.

DON'T MISS OUT

An inscription on the southern gateway of the Great Stupa at Sanchi refers to the benevolent and welfare activities carried out by the guild of ivory workers from Vidiśhā. These ivory workers were responsible for carving the stone sculptures on the gateways and railings surrounding the stūpa, indicating the active role of craft guilds in both artistic production and religious patronage.

In this chapter, we explored the foundations of state and society in early India, while tracing the development of political institutions, social structures, economic life, and cultural traditions. From the culture of the Vedic period to the robust administration of vast empires, social and political ideas evolved over time while maintaining a remarkable continuity. The chapter also highlighted the dynamic nature of early Indian society and its intellectual and cultural achievements. On the whole, the developments of this period laid the groundwork for many enduring traditions that continue to shape the Indian subcontinent's social and cultural life even today.

Before we move on ...

- Indian civilisation demonstrates a remarkable continuity in its cultural, social, and political traditions.
- The structures of social, cultural, and political life in India evolved from Vedic period and took various forms across space and time.
- The rise of powerful states such as Magadha and empires like the Mauryas and Guptas led to the emergence of structured systems of administration, taxation, military organisation, and governance.
- Early political organisation evolved from clans (*janas*) led by a *rājā* to larger kingdoms and republics (*gaṇas* or *saṁghas*) and later to powerful empires such as the Mauryas, Guptas, and Cholas. The economy was largely based on agriculture, supported by irrigation works, while trade networks, ports, and guilds played a vital role in the growth of commerce and crafts. Despite political changes, knowledge traditions, trade networks, cultural, and devotional practices such as Bhakti continued to flourish across regions.

Questions and activities

1. How did political organisation change from the Vedic period to the age of large empires such as the Mauryas and the Guptas? Explain the administrative system of the early Indian states.
2. Describe the role of the king, important officers, and the methods used to govern large territories.
3. After studying this chapter, what do you think were the most important features of the state and society in India before 1000 CE?
4. What do early texts such as the *Ṛig Veda*, *Arthaśhāstra*, and the *Mahābhārata* reveal about political and social life?
5. What can we learn from early Indian society about *varṇa* and the role of women?
6. Explain how assemblies like *sabhā* and *samiti* limited the power of the *rājā*. Which modern institutions perform similar functions today?
7. What do the terms *varṇa* and *jāti* refer to in early Indian society? How were they different, and what factors may have contributed to the formation of various *jātis*?
8. Why do you think education in early India emphasised both knowledge and moral values? How might this have benefited society?
9. Look at the major trade routes of early India (Fig 5.12). How do you think these routes helped people in the exchange of goods, skills, beliefs, and cultural practices.
10. What might have been the advantages and challenges of ruling a large empire in the absence of modern communication systems?
11. Many ideas about governance come from texts composed by scholars and advisors of the king. What might be some limitations of relying only on such sources?
12. Read the source and answer the questions:

    The Nāśhik cave inscription (2nd century CE) of Uṣhavadāta records:

    "Uṣhavadāta, son of Dinika, son-in-law of king Nahapāna [...] has bestowed this cave on the *Saṁgha* generally; he has also given a perpetual endowment, three thousand—3000 *kāhāpaṇas*,

which, for the members of the *Saṁgha* of any sect, and any origin dwelling in this cave, will serve as cloth money and money for outside life (*kuśhaṇa*); and those *kāhāpaṇas* have been invested in guild dwelling at Govadhana—2000 in a weavers' guild, interest one *pratika* (monthly) for the hundred, (and) 1000 in another weaver's guild, interest three quarters of a *paḍika* (monthly) for the hundred."

a. What does this source tell us about the economic role of guilds?

b. Why were guilds trusted with money deposits?

c. Identify the donor and the donees from the given source.

13. Mark and locate on the map of India the following important centres: Pāṭaliputra, Nāśhik, Ujjayinī, Vikramśhila, Kānchipuram, Mathurā, Rājgṛiha.

14. Prepare a short presentation or poster on one of the following—

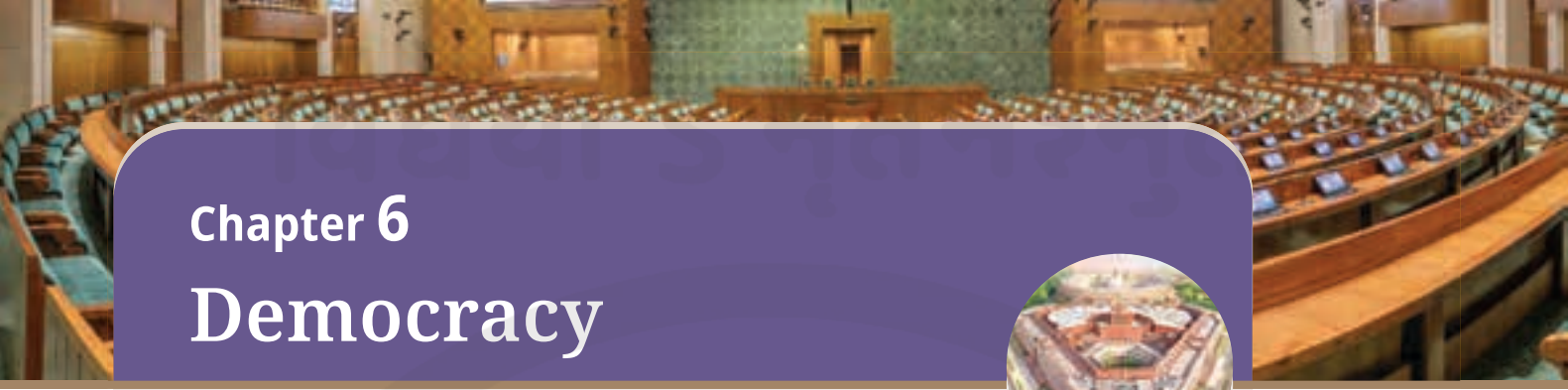
a. Life in the Vedic society

b. Early education system (*gurukula*)

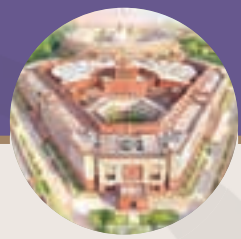
c. Trade and guilds in early India

d. Role of women in early Indian society

Notes



Chapter 6
Democracy



The Big Questions

1. *How has the idea of democracy evolved over time and shaped our understanding of it today?*
2. *What are the different forms of democracy, and how are they practised in India and other parts of the world?*
3. *What are the essential features of a democracy and how do they extend beyond government institutions?*
4. *What are the challenges faced by Indian democracy?*

LET'S RECALL

We have learnt in previous grades that democracy is a form of government in which the source of power and authority lies with the citizens of the country, who elect their representatives through free and fair elections. Democracy is founded on the principles of freedom, equality, justice, rights and duties, ensuring that citizens have the right to vote, express their opinions, and participate in the decision-making processes.

India is the world's largest democracy. With a population of over 140 crore and a voter base of over 96.8 crore (in 2024), India, that is, Bharat, represents the largest participatory democracy, where people choose their government by electing their representatives. Our democracy serves as a beacon of hope and an example for the rest of the world. However, like all democracies, India also faces certain challenges, some of which we will examine later in this chapter.

A constitution plays a crucial role in safeguarding the rights of the people in a democracy. In India, democratic principles are guided by the Constitution of India, which was adopted on 26 November 1949 and came into force on 26 January 1950. The Constitution not only guarantees but also protects the Fundamental Rights of all citizens. It ensures that no citizen is discriminated against on the basis of religion, race, caste, sex, or place of birth. It also encourages active citizen participation in democratic processes at the national, state, and local levels through elections.

However, it is important to understand that the democratic ethos in India did not emerge suddenly; rather, it evolved through a long historical process. In this chapter, we will explore the genesis and development of democratic ideas in India. We will also deepen our understanding of democracy by examining its meaning, key features, and various practices associated with it in India and around the world.

Tracing Democratic Traditions from Early Times

The idea of democracy has been a part of the Indian ethos since early times. In the previous chapter, we read about Assemblies of

Samāno mantraḥ samitiḥ samānī
samānaṁ manaḥ saha chittam eṣhām |

sSamānaṁ mantram abhimantraye vaḥ
samānena vo haviṣhā juhomi ||

Their counsel is one and the same; their assembly is one. Their mind is one, and their intention together is one. I invoke for you this same guiding resolve; with a common offering, on your behalf, I make the oblation. (I make the oblation on your behalf.)

– *Ṛig Veda*, 10.191.3

Fig. 6.1. A verse from the Aikyamatya Sūktam of the Ṛig Veda

Fig. 6.2. Members of the Constituent Assembly

the Vedic period such as *Sabha*, *Samiti*, and *Vidhata* that involved collective decision-making. We also read about the functioning of the early republican states (*gaṇas* or *saṁghas*). Thus, from the earliest times, the king was not an independent ruler but rather worked in consultation with assemblies, ministers, and officers of various capacities.

A verse (Fig. 6.1) from the *Aikyamatya Sūktam* of the *Ṛig Veda* emphasises the importance of collective thinking, shared discussion, and unity of purpose. The values expressed in this verse help us understand that democratic principles, such as consultation, consensus, and shared responsibility have deep roots in India's intellectual and cultural traditions.

The functioning of the *Bauddha Saṁghas*—a monastic community established by Gautama Buddha—also reflects India's democratic traditions. The *Saṁgha* encouraged debate and discussion, and its members could choose their leader and make decisions through voting, demonstrating collective decision-making.

Over the long passage of time, invasions by foreign invaders disrupted the political and social fabric of some parts of the country. By the 19th century, the British had colonised most parts of the Indian subcontinent. Foreign rule altered political structures and limited people's participation in their governance. However, the long struggle for independence from British colonial rule revived and strengthened democratic ideas among the people.

Before India attained independence in 1947, the Constituent Assembly was formed in 1946 to draft a constitution for the country. As studied in earlier grades, it took the Assembly 2 years, 11 months,

Fig. 6.3. Dr. B.R. Ambedkar, Chairman of the Drafting Committee of the Constitution of India

and 18 days to draft the world's longest written Constitution. Apart from the indigenous democratic traditions, the global spread of democratic values also influenced the Constituent Assembly's Debates (CAD), contributing to the creation of a robust, flexible, transformative, and responsive constitution.

The CAD reflects the members' belief that the constitution should not be a rigid legal code, but a dynamic document capable of evolving through lawful amendments without compromising its fundamental values. Accordingly, while making provisions for establishing democratic institutions and processes that uphold liberty, equality, justice, and fraternity, the Constitution also provides for amendments under Article 368. This ensures that the Constitution remains flexible and responsive to the changing socio-political needs.

Principles of Democracy

A thriving democracy rests on certain non-negotiable principles. Let us study the essential principles of democracy that are upheld in India through various provisions of the Constitution.

Popular Sovereignty

In a democracy, the ultimate source of power lies with the people. Thus, the idea of popular sovereignty means that the state derives its authority from the people.

A government elected through free and fair elections formulates policies and implements laws. Every citizen, 18 years of age and above has the right to vote through a secret ballot. This right is known as the Universal Adult Franchise. Citizens exercise their right to vote to elect governments and representatives. You will read more about elections in the next chapter.

THINK ABOUT IT

- Why is it important that the ultimate source of power rests with the people in a democracy?
- How does people's participation through voting strengthen popular sovereignty?

Rule of Law

The Rule of Law is a fundamental principle of any democratic society. It ensures **equality before the law** and **equal protection of the law**, and establishes that no one is above the law. When laws are violated, disputes are resolved in a court of law through **procedures established by law**, not by force or personal influence. This prevents misuse of power and protects people's rights. No citizen can be punished without due process, and everyone is provided a fair opportunity to defend their rights against arbitrary action. In this way, the rule of law promotes justice, accountability, and trust in the democratic system.

Fundamental Rights

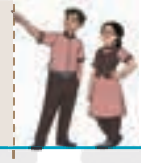
The Fundamental Rights enshrined in the Indian Constitution play a crucial role in safeguarding the rights, freedom, and dignity of citizens. There are six Fundamental Rights—the Right to Equality (Articles 14–18); the Right to Freedom (Articles 19–22); the Right Against Exploitation (Articles 23–24); the Right to Freedom of Religion (Articles 25–28); Cultural and Educational Rights (Articles 29–30); and the Right to Constitutional Remedies (Article 32). Any violation of these can lead to appropriate legal action, and citizens can seek constitutional remedies under Articles 32 and 226 for the protection and reinforcement of their fundamental rights. These rights are enforceable in courts of law and are indivisible and inalienable, subject to reasonable restrictions in accordance with the procedure established by law.

Equality before law: Every individual irrespective of status, identity, or rank is treated equally by the law.

LET'S EXPLORE

→ The Constitution not only guarantees Fundamental Rights to citizens but also outlines their Fundamental Duties and the Directive Principles of State Policy. Discuss their significance and identify the differences among them.

→ The Right to Education (Article 21A) was added in 2009, ensuring free and compulsory education for children aged 6 to 14. Discuss its significance.



Procedure established by law: Procedure established by the law of the state or statue.

Equal protection of law: All persons in similar circumstances shall be treated equally by law without any discrimination.

Separation of Powers

The separation of powers among the legislature, executive, and judiciary—each with distinct responsibilities—enables democratic institutions to function effectively and responsibly. The legislature makes laws, the executive implements them, and the judiciary interprets them, thereby preventing the concentration of power in any one organ. This separation is essential for maintaining checks and balances among the three organs of the government. For example, while parliament has the power to amend the Constitution, the judiciary can review such amendments to ensure they are consistent with the spirit of the Constitution. Similarly, the executive power of enforcement agencies is regulated by laws and rules framed by the Parliament and can also be reviewed by competent courts. If a law is inconsistent with the constitutional provisions, the judiciary has the power to declare it unconstitutional.

Public Interest Litigation: A legal action initiated in a court of law for the enforcement of public interest.

The judiciary upholds the Constitution and plays a vital role in protecting and promoting democratic values and the rights of all sections of the society. It ensures the laws enacted by the Parliament of India and the State Legislative Assemblies are in accordance with the Constitution. The judiciary is an impartial and independent institution that safeguards citizens' rights and upholds the spirit of the Constitution. Important initiatives, such as **Public Interest Litigation** (PIL), have also been taken by the judiciary from time to time to ensure access to justice for all.

THINK ABOUT IT

What do you think would happen if the same organ of the government made laws, implemented them, and enforced them? Share your opinion with your classmates.

Accountability and Transparency

Democratic governments are accountable to citizens. Through elections, public debates, and engagement with civil society, citizens can evaluate the actions of the government. This continuous public involvement strengthens democracy and builds trust between the government and the people. Several institutional and policy frameworks ensure accountability and transparency in the Indian

democratic system. For example, the Right to Information (RTI) Act, 2005, allows citizens to seek information from government agencies. You will learn more about this later in this chapter.

Multi-Party System

In a multi-party system, several political parties contest elections, representing diverse voices and interests. This gives people the power to choose those they consider most suitable. Each political party is guided by certain ideas, values, and principles that shape its policies and actions. In elections to the Parliament or State Assemblies, the party—or a coalition of parties—that secures more than 50 per cent of the seats forms the government, while those with fewer seats constitute the opposition. Political parties represent a wide range of socio-cultural, political, ideological, and regional interests, reflecting the diversity of Indian society. They function within the framework of rules and regulations laid down by the Representation of the People Act, 1951.

Safeguarding the Rights of Vulnerable Groups

It is the duty of the government to protect all communities, regardless of caste, gender, religion, or regional background. Given historical factors that have led to an unequal distribution of opportunities and resources, it is essential for the government to ensure that resources are distributed equitably, especially to the most vulnerable sections of society, without discrimination. For example, Article 46 of the Constitution states that "the State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation."

DON'T MISS OUT

The real strength of democracy lies in its citizens—their participation, awareness of duties and rights, and commitment to honesty and fairness. Without these, no democratic process or institution can function effectively or deliver meaningful outcomes. The table on the next page highlights how different democratic processes are supported by specific institutions and the values they promote:

Process	Institutions	Democratic values
Legislative Process	Legislature (Parliament, State legislature, and Local bodies)	Representation, Deliberation, Dissent
Electoral Process	Election Commission of India	Participation, Equality
Judicial Process	Courts	Rule of law, Equality, Justice
Participatory Processes	Media, **Civil Society**	Debate and discussion, freedom of expression
Accountability Mechanisms	Comptroller and Auditor General (CAG), Central Information Commission (CIC), Lokpal, Central Vigilance Commission (CVC)	Transparency
Decentralisation	Rural and Urban local bodies	People's participation at grassroots level
Checks and Balances	Division of powers between the centre and the states is guaranteed through a written constitution	Devolution of power

Civil Society: Refers to the voluntary groups, NGOs and community associations that function interdependently within society.

LET'S EXPLORE

The first column of the table below lists some key features of democracy in India. Fill in the second column with suitable examples from your state, town, or village. One row has been completed for you.

Features of Democracy	Examples
Popular Sovereignty	
Rule of Law	
Separation of Powers	
Fundamental Rights	
Accountability and Transparency	Parliamentary procedures such as **Question Hour** and the auditing of government accounts ensure accountability. Laws like the Right to Information provide transparency.
Multi-Party System	

Question Hour: The first hour of a parliamentary session when members ask questions to the government. This helps check the government's work and hold it accountable.

Role of Media in Democracy

In present times, the media has become an integral part of our lives. In addition to keeping people informed about developments around the world, it serves as a voice of the masses. Newspapers, news channels, and social media platforms raise issues concerning the public and contribute to their resolution through appropriate mechanisms. Owing to its critical role in safeguarding people's voices and upholding democratic principles, media is often referred to as the 'fourth pillar of democracy'.

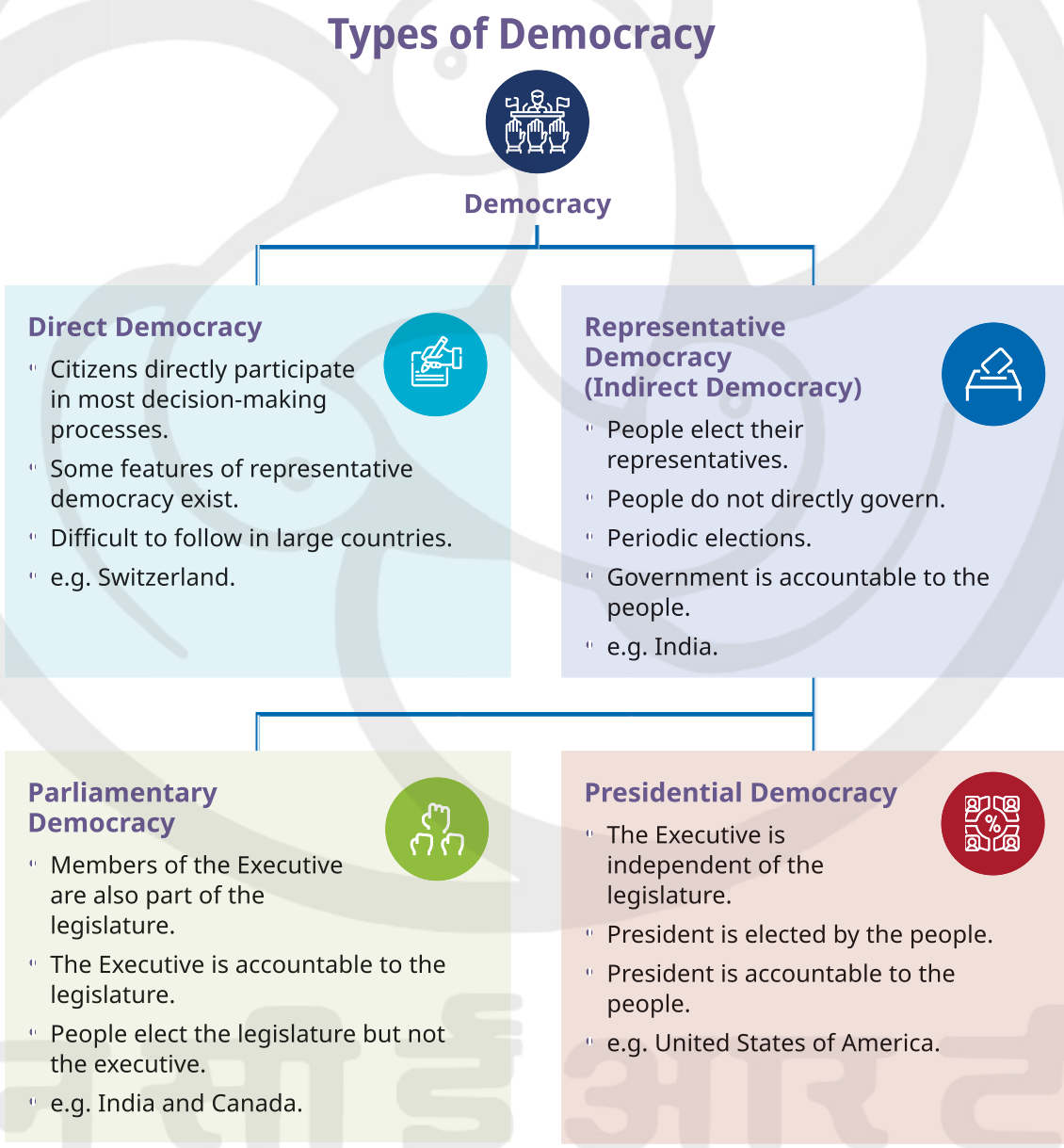


Fig. 6.4. Types of Democracy

You must have understood by now that though there are some fundamental principles of any democracy, like freedom, equality, participation, rule of law, rights, and duties, yet democracy does not offer a single model of government. The characteristics and features of democracy vary from country to country. Different societies institutionalise democracy in diverse ways, depending on how citizens participate in decision-making and how political power is structured. As you have learnt in previous grades, there are different forms of democracy—some involve direct citizen participation, while others function through elected representatives.

Imagine your school is celebrating a 'Youth for Democracy' festival. Students' Councils from different countries are visiting your school. Each follows its own model of functioning, similar to how countries around the world practise democracy. Let us see what we can learn from them.

These examples show that systems may differ in how power is shared, who participates in decision-making, and whether checks and balances are in place.

Team A

All students gather in one place and elect their president once a year. However, the president has very limited powers. For major decisions, such as the canteen menu, they gather at a designated place and vote using ballot papers.

Team B

The school holds elections every year. Every class elects a representative, who then participates in the election of the Students' Council President. The President and the representatives together make decisions.

Team C

Students directly vote for the School President as well as for members of the Council. The President acts as both the head of the Students' Council and the chief decision-maker.

Team D

Elections are held, but only selected candidates are allowed to contest. The School President holds most of the power. The Student Council exists but has very limited authority, and opposition voices are weak or discouraged.

Fig. 6.5

LET'S EXPLORE

Select your ideal team from Fig. 6.5 and give reasons for your selection.

Having understood the different types of democratic systems, let us now look at how democracies function across the world:

Federalism: A system of government in which power and responsibilities are shared between the central and the state governments as expressed in the central, state and concurrent list of the Constitution of India, and the residual power remains with central government.

Sovereignty: Derived from the Latin word *superanus*, meaning 'supreme'. It refers to the supreme, final, and independent legal authority of a State over its territory and citizens.

Country	Type of Democracy	System of Government	Head of State / Head of Government	Key Features
India	Representative Democracy (Parliamentary Democracy)	Executive power lies with the council of ministers headed by the Prime Minister	President (Head of State), Prime Minister (Head of Government)	Multi-party democracy, Written constitution, Fundamental Rights and Duties, **Federalism**
Canada	Representative Democracy (Parliamentary Democracy)	Executive power lies with the Prime Minister	Governor-General appointed by the Crown of the UK, Prime Minister (Head of Government)	Federalism, multi-party system
United Kingdom	Representative Democracy (Parliamentary Democracy with Constitutional Monarchy)	In a Constitutional Monarchy, the executive power lies with the Prime Minister	Monarch (Head of State), Prime Minister (Head of Government)	Unwritten constitution, parliamentary **Sovereignty**, multi-party system.
Switzerland	Direct Democracy	Executive Power lies with the Federal Council	The President is the Head of the Government	Written constitution with multiple parties
United States of America	Representative Democracy (Presidential Democracy)	Executive power lies with the President	The President is the Head of the Government	Written constitution, with two major parties

LET'S EXPLORE

Work in pairs or small groups. Choose any two of India's neighbouring countries (Afghanistan, Bangladesh, Bhutan, China, Maldives, Myanmar, Nepal, Pakistan, or Sri Lanka) and find out the following:

- → Does the country hold regular elections?
- → Who chooses the Head of the Government?
- → Is there more than one political party?
- → How much freedom do citizens have to express their opinions and criticise the government?

How would you describe this system? Give reasons for your answer.

- → Democratic or Partially democratic or Non-democratic

Democracy in Practice: India's Living Democracy

DON'T MISS OUT

India is the world's largest democracy, and more people vote in Indian elections than the total population of many countries.

In 2024, India had over 96.8 crore registered voters.

- ◈ **Huge representation:** On average, a Member of Parliament represents about 25 lakh people. This shows the enormous scale at which democratic representation operates in India.
- ◈ **Many languages, one election:** Elections in India are conducted in 22 scheduled languages, along with several other languages. Election symbols are used so that every citizen, including those who cannot read, can vote independently.
- ◈ **Over one million polling stations:** More than one million polling stations, including those in remote areas, such as mountains, forests, deserts, and islands, are set up. In some cases, polling stations are created even for a single voter.
- ◈ **Thousands of political parties:** India has over 2,800 registered political parties, reflecting the country's social and regional diversity and allowing many viewpoints to compete peacefully.

Fig. 6.6. Unique Polling Stations

Based on the given facts and figures, imagine the strength of Indian democracy.

India's democracy stands out for its scale, depth, and inclusiveness. With nearly a hundred crore voters, it represents an unparalleled exercise in public participation. This vast electorate reflects not only the size of the population but also the extensive reach of its democratic institutions. The ability to conduct regular, nationwide elections for such a large and diverse population highlights the institutional strength and organisational capacity of Indian democracy.

What makes Indian democracy truly "living" is its diversity and citizens' active engagement in the electoral process. The Indian electorate includes people from varied linguistic, religious, and socio-economic backgrounds, all participating within a single democratic framework. Hence, elections become a collective national exercise in which voices from different regions and communities are expressed through the ballot. This continuous and widespread public participation reinforces India's position as the world's largest democracy—not merely in terms of numbers, but through the sustained involvement of its people in shaping governance and public life. One of the most widely recognised features of a democratic system is the conduct of periodic elections, which enable people to choose their representatives. You will study this feature in detail in the next chapter on 'Elections'.

A deeper understanding of democracy also requires an appreciation of citizens' broader role in democratic processes. Participatory democracy emphasises greater involvement of citizens not only through elections but also through active engagement in shaping policies and governance. Such participation takes place through mechanisms, such as local councils, public consultations, and community-driven initiatives.

India's constitutional framework operates through a three-tier system comprising the Union, State, and Local governments, facilitating administrative efficiency and democratic participation. You have learnt about them in your Grades 6 to 8 Social Science textbooks. Beyond the Panchayati Raj and Municipalities, the Constitution also provides provisions to protect tribal heritage. In specific north-eastern regions, Autonomous District Councils (ADCs) are established, granting them legislative and judicial authority to preserve tribal customs. Complementing this, the PESA Act (Panchayats Extension to Scheduled Areas) of 1996 applies to tribal areas in other states, empowering the Gram Sabha as the primary decision-making body. By balancing these levels of authority, the Constitution of India provides a unified national framework that draws its strength from the diverse traditions of every community.

Case Study: Democracy at the Grassroots in India

Across India, several villages demonstrate how democracy functions beyond elections through active participation in local self-government. The following examples show how local bodies of democratic institutions at the grassroots in India can play a vital role in improving people's lives.

1. Jethipura Gram Panchayat (Block Idar, Sabarkantha, Gujarat)

Development Through People's Participation

Jethipura Gram Panchayat of Gujarat was awarded Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar (NDRGGSP) in 2019 for its exemplary performance. It not only ensured the effective conduct of Gram Sabhas and proper maintenance of records, but also went a step further by organising Special Gram Sabhas. Other initiatives included timely and appropriate action on issues related to education, sanitation, and welfare of

Fig. 6.7. Gram Panchayat meeting (Representative image)

women and children. It also conducted Mahila Sabhas and ensured adequate **quorum** in Gram Sabhas, with active participation from marginalised sections of the society, including Scheduled Castes, Scheduled Tribes, and women.

Quorum: The presence of the minimum number of members in the meetings of an assembly to make the proceedings valid.

2. South Manubankul Gram Panchayat, Rupaichari Block, Tripura Tribal Areas Autonomous District Council, Tripura

Women-Friendly Panchayat

The South Manubankul Gram Panchayat in Tripura functions as an active local government focused on improving people's lives, especially those of women. It promotes women's participation in decision-making and provides facilities related to health, sanitation, and livelihoods. The Panchayat organises community programmes, supports self-help groups, and ensures the effective implementation of government schemes for village development. It also works towards improving cleanliness, education, and social awareness. Owing to its strong focus on women's welfare and inclusive development, it has been recognised as a "women-friendly panchayat" at the national level by the Ministry of Panchayati Raj.

Cooperatives: Groups formed by people to work together for a common benefit; members share profits and responsibilities equally.

Cases like these show that democracy in India is not limited to voting during elections. When citizens actively participate in grassroots and Panchayati Raj institutions, democracy becomes more responsive, inclusive, and effective at all levels.

LET'S EXPLORE

A democratic system seeks to promote participation, ensure fairness, limit the concentration of power, and resolve disagreements peacefully. Identify examples from the above case study that reflect these features.

Democracy, however, is not limited to formal institutions of the government. The spirit of democratic functioning also extends into everyday social life. Civil society organisations, socio-religious and community institutions, **cooperatives**, and trade unions often adopt democratic decision-making methods.

Women and the Right to Vote: The Indian Experience

In a number of countries, women had to launch a long and difficult struggle to secure the right to vote. In Britain, women received full voting rights only in 1928, while in the United States of America, this occurred in 1920, after decades of protests and movements. These developments show that democracy in these societies expanded gradually.

Fig. 6.8

In contrast, women in India were granted the right to vote. When the Constitution of India came into force in 1950, Universal Adult Franchise was extended to all citizens—men and women alike—without discrimination, and Indian women did not have to engage in prolonged legal battles or protest to secure voting rights. However, the right to vote does not automatically ensure equal participation. Social prejudices continue to act as barriers and affect women's adequate representation in politics.

Women's Reservation in Local Bodies

Empowerment of women starts with their active participation in institutions of decision-making. Article 243(d) of the Constitution of India provides not less than one-third reservation for women out of total number of seats to be filled by direct election in every Panchayat. However, 21 States and 2 Union Territories have gone even further and have made provisions of 50% reservation for women in Panchayati Raj Institutions in their respective State Panchayati Raj Acts.

Similarly, Article 243(t) of the Constitution of India provides not less than one-third reservation for women out of the total number of seats to be filled by direct election in every Municipality. As of 2023, 17 States and 1 Union Territory have given 50% reservation for women in Urban Local Bodies.

LET'S EXPLORE

India continues to work towards more inclusive institutions. Discuss in class about the advantages of increased representation of women in the legislature.

DON'T MISS OUT

Legislation: Laws made by the government. These laws help maintain order and regulate society.

The Right to Information (RTI) Act, 2005, was enacted in India through democratic processes of representation and **legislation**. Over time, concerns raised by citizens, journalists, civil society groups, and elected representatives regarding transparency and accountability were examined by parliamentary committees and addressed within government institutions. These discussions highlighted the need for a law that would enable citizens to access information held by public authorities. The proposal for an RTI Act was reviewed by expert groups, debated in the Parliament, and refined through consultations with various stakeholders.

Elected representatives played a key role in shaping the final legislation by incorporating safeguards related to national security and administrative efficiency. After being passed by the Parliament, the RTI Act came into force in 2005. This Act empowers citizens to seek information from government departments, thereby strengthening accountability and democratic governance.

These examples show how civil society and community institutions act as bridges between citizens and the State. Through Public Interest Litigation (PIL), campaigns, and community organisations, they help make democracy more inclusive and responsive.

THINK ABOUT IT

As we studied in earlier grades, the village serves as a unit of grassroots democracy in India, empowering rural communities to participate in decision-making processes. Many Indian leaders, such as Chaudhary Charan Singh and Babu Jagjivan Ram, who emerged from these rural backgrounds, advocated for the rights of the rural poor and other marginalised sections of society.

Explore and discuss the contributions of eminent Indian leaders who worked towards strengthening grassroots democracy.

Challenges to Democratic Practices in India

Democracy requires constant care, awareness, and active participation from both institutions and citizens. While the Constitution guarantees valuable rights to all citizens, it also expects individuals to exercise these rights responsibly. In this sense, democracy is not limited to elections—it is reflected in everyday

behaviour, decision-making, and civic responsibility. Actions, such as damaging public property, spreading misinformation, or violating public rules weaken democratic values. Similarly, indifference towards public issues can adversely affect the health of a democracy.

India has made significant progress in ensuring representation and participation. However, it continues to face several challenges, such as illiteracy, misinformation, and inequality. In recent times, the spread of fake news, especially through social media and other digital platforms, has emerged as a major concern. Such misinformation can influence public opinion, create confusion, and sometimes even lead to conflict. Issues like poverty, regionalism, gender inequality, and social discrimination also create barriers to equal participation. In addition, gaps in the effective implementation of laws and policies may reduce public trust in institutions.

LET'S EXPLORE

In small groups, identify two or three examples of information shared on social media that you believe may be misleading or false. Discuss what made you question their reliability and how such information can influence people's opinions. Reflect on why access to accurate and authentic information is important in a democracy.

Emergency

One of the major challenges to democracy in India was recorded when an **Emergency** was imposed in 1975–77. In the early 1970s, public dissatisfaction with the government led by Indira Gandhi was growing. Rising unemployment, inflation, and allegations of misgovernance led to widespread protests. In June 1975, a National Emergency was imposed on the grounds of internal disturbance. During this period, a majority of Fundamental Rights were suspended, the press was censored, and numerous political leaders and activists were arrested. Democratic institutions came under severe strain, and citizens' freedom was restricted. Mass movements led by Jayaprakash Narayan—a political leader and socialist thinker, popularly known as Lok Nayak—mobilised students and citizens, especially in Bihar and Gujarat.

The Emergency was lifted in 1977, and general elections were held, allowing people to express their will through the ballot. The defeat of the ruling government demonstrated the strength of Indian democracy and highlighted the importance of

Emergency: Articles 352, 356, and 360 of the Constitution of India deal with the provisions for declaration of National Emergency, President's Rule, and Financial Emergency, respectively.

Civic responsibility: Civic responsibility also includes respecting others' rights, using social media responsibly, abiding by laws and rules, appreciating the country's diversity, and participating in activities that strengthen unity.

constitutional safeguards, civil liberties, and active citizen participation in protecting democratic values. This period highlighted both the vulnerabilities and the resilience of democratic institutions in India.

Democracy and You

Being well-informed is one of the vital responsibilities of a young citizen. Reading newspapers, watching news programmes, and using the internet responsibly help us stay aware of national and international events. Access to authentic information enables us to form informed opinions on public issues, understand how democracy operates in practice, and contribute positively to society. Programmes like the National Service Scheme (NSS) and the National Cadet Corps (NCC) are designed to instil **civic responsibility**, social awareness, and respect for democratic ideals. Through community service, teamwork, and organised activities, you can learn the importance of participation, responsibility, and service to the nation.

LET'S EXPLORE

Observe Fig 6.9 and explore the various other digital and non-digital ways through which you can participate in a democracy.

Fig. 6.9. Youth and Democracy

THINK, DISCUSS, ACT

Think: How do your actions as a student contribute to your school community and to democracy in a larger context?

Discuss: Talk to your classmates about a social or community issue that you care about. How can you, as a student, make a difference?

Act: Choose one activity to fulfil your civic responsibility this month. Reflect on how your actions contribute to strengthening democracy and community spirit.

Democracy is not merely a system of government but a continuous process shaped by institutions and active citizenship. From early ideas of collective decision-making to the constitutional framework of the modern Republic, democratic principles have evolved to ensure authority is exercised with accountability. India's democracy stands out for its scale, diversity, and resilience. It functions through elections, constitutional values, and everyday civic practices. While challenges remain, sustained public participation and respect for democratic norms keep it vibrant. Ultimately, the strength of a democracy depends not only on its institutions and laws but also on informed and responsible citizens who actively participate in shaping their society.

Before we move on...

- Democracy is a system of self-governance that involves institutions, rules, and practices enabling people to participate in decision-making at the local, state, and national levels; it is not limited to elections alone.
- Democratic processes are guided by principles, such as transparency, participation, inclusion, fairness, equality, accountability, and respect for diverse opinions.
- Democratic ideas in India have deep roots in ancient traditions, such as the *Sabhā* and *Samiti* mentioned in Vedic texts, which emphasised consultation and collective decision-making. Such ideas and values, along with later developments from around the world, shaped the modern democratic system.
- India's democracy is based on its Constitution, which provides for popular sovereignty, universal adult franchise, fundamental rights and duties, the rule of law, and the separation of powers.

- India is considered the world's largest democracy due to the scale of citizen participation, particularly the number of registered voters, although challenges remain in ensuring deeper inclusion and representation.
- Democracies across the world follow different systems but share common democratic values and principles.
- Citizens contribute to democracy through civic awareness, responsible use of media, participation in community activities, and respect for democratic values in everyday life.

Questions and activities

1. Read the passage and answer the questions that follow:

   A school cabinet was responsible for planning a Republic Day celebration, and members had different opinions on which activities to include. After a discussion, they decided to vote, and the activities supported by the majority were selected.

   a. Which democratic values are reflected in this situation?

   b. How does voting help resolve differences of opinion?

   c. Why is the majority decision important in a democracy?

   d. Mention responsibilities of elected representatives after a decision is made.

2. How would democracy be affected if citizens stopped following laws and civic responsibilities? Explain with an example.

3. Which situation best reflects the idea of popular sovereignty and why?

   a. A law is passed without public discussion

   b. Citizens vote to choose their representatives

   c. A court gives a final judgment

   d. A minister takes an independent decision

4. The Rule of Law is violated when:

   a. Laws are applied equally to all

   b. Courts review government actions

   c. Powerful individuals are treated above the law

   d. Citizens challenge laws through legal means

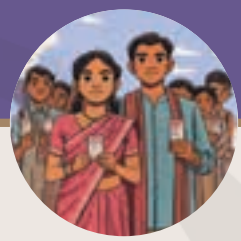
5. Why is the Rule of Law essential for protecting democracy?
6. Is voting alone enough to make a country democratic? Support your answer with examples from the chapter.
7. Social media allows people to express opinions freely.
   a. How can this strengthen democracy?
   b. How can it weaken democracy if used irresponsibly?
8. Write a paragraph on what democracy means to you as a young citizen.
9. Conduct a model parliament session or Gram Sabha in class on local issues—cleanliness, responsibilities towards public property, or school safety.
10. Choose any one democratic institution in India (such as Parliament, Election Commission, Judiciary, or Panchayat).

    Prepare a short note explaining:
    a. Its role in democracy
    b. How it ensures accountability and participation.
11. What role does the Constitution play in strengthening democracy in India?
12. What challenges do you think democracy in India faces today?

Notes

Chapter 7

Elections



The Big Questions

1. *Why are elections essential to a democratic system?*
2. *How do electoral systems and rules shape political representation and fairness?*
3. *What role do institutions and laws play in ensuring free and fair elections?*
4. *What challenges do elections face in practice, and how can these challenges affect democracy?*

Why do Elections Matter?

Elections are one of the most important processes for exercising democratic rights. Regular and periodic elections lie at the core of democracy. Representatives to public offices can be chosen through either direct or indirect elections. In India, members of the Lok Sabha at the central level, members of the Vidhan Sabha (Legislative Assembly) at the state level, and members of local bodies (like Panchayats, municipal corporations, etc.) are elected through **direct elections** every five years. In contrast, the President, Vice President, and members of the Rajya Sabha are elected through **indirect elections**.

You read about a case in Grade 8 where Gurmat was elected as class representative (CR). Can we allow her to continue as the CR in Grade 9 without facing a fresh election? Similarly, can the government continue beyond the prescribed term without seeking the people's mandate again? And can we exercise our choice if only one political party is contesting the election? The answer to all these questions is No, because one of the most crucial elements of democracy is participating in the periodic election of those who will make decisions on our behalf. Elected representatives are accountable to the people. The right to elect our representatives and holding them accountable is ensured through periodic elections, and our vote is the principal means by which we exercise this right.

Direct Elections: Elections in which citizens vote directly to choose their representatives or leaders.

Indirect Elections: Elections in which citizens vote for representatives who then choose/elect the leaders.

An election is a process through which we exercise the right to vote and fulfil our responsibility as citizens.

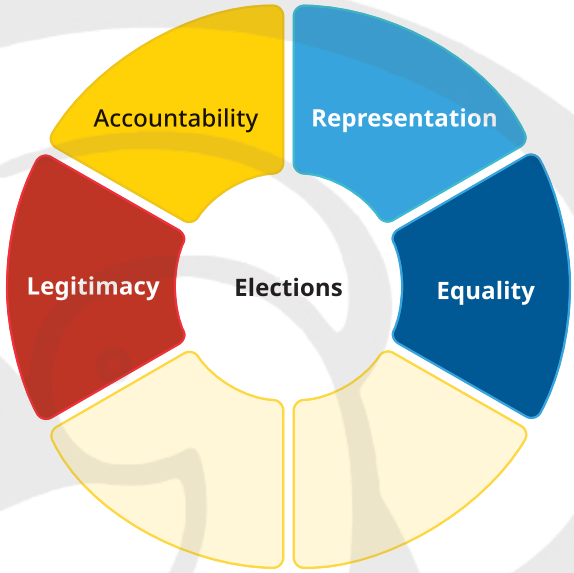


Fig. 7.1. Importance of elections in a democracy. (Fill in the two empty boxes to indicate why elections are important for democratic functioning, and discuss how each one of them is ensured through elections.)

DON'T MISS OUT

Have you heard the term 'psephology'? It refers to the scientific study of elections. The term is derived from the Greek word *psēphos*, meaning 'pebble,' and *logy*, meaning 'systematic study.' In ancient Greece, pebbles were used for voting, leading to the origin of the term 'psephology.'

Inside India's Election Machinery

For democracy to be realised, elections must be conducted in a free, fair, and transparent manner. The electoral process in a vast and diverse country like India, where millions of people vote across thousands of constituencies, requires laws, a well-organised and coordinated system at all levels—national, state, and local—and a robust machinery to manage it. This is where the electoral system and the various stakeholders, like the Election Commission of India (ECI), various political parties, civil society, media, and the voters, come to play their roles. Our Constitution and various parliamentary laws provide for the functions and powers of all these stakeholders.

Fig. 7.2. Indian elections — a festival of democracy

The Electoral System

The first step towards successfully conducting elections is deciding on the method of converting the votes cast into seats in the legislature. The way an electoral system allocates seats is what distinguishes it from other systems. The framers of our Constitution discussed the two most common electoral systems and ultimately chose the plurality system, also known as the 'First-Past-The-Post' (FPTP) system.

We elect members of the Lok Sabha and the Vidhan Sabha using the FPTP, and the elections to the Rajya Sabha and those of the President and the Vice President are conducted using the system of proportional representation (Fig. 7.3).

The Vidhan Sabhas are directly elected bodies that make laws for their respective States and some Union Territories. Elections to the Vidhan Sabha are conducted in the same manner as those to the Lok Sabha, using the FPTP electoral system. In six states—Andhra Pradesh, Bihar, Karnataka, Maharashtra, Telangana, and Uttar Pradesh—the legislature has a bicameral structure. This means it has two houses—the Upper House, known as the Vidhan Parishad (Legislative Council), and the Lower House, known as the Vidhan Sabha (Legislative Assembly). The Vidhan Parishad consists of representatives elected by the members of the Vidhan Sabha and local bodies, and also by graduates and teachers in the State having such a Parishad. In addition, the Governor of the State nominates some members to represent fields, such as art, science, social service,

literature, and co-operatives. The elections to the Vidhan Parishad are held under the system of proportional representation by means of a single transferable vote (Fig. 7.3).

Electoral Systems

Feature	First Past The Post (FPTP)	Majority System	Proportional Representation (PR)
Name of the Country (Imaginary)	**Haritbhumi**	**Ratnadweep**	**Swarnalok**
Seats in the Parliament	25 seats	25 seats	100 seats (nationwide list)
Main Political Parties	Party A Party B Party C	Party X Party Y Party Z	Party M Party N Party O Party P
How Voting Works?	Each voter votes for one candidate in their constituency. The candidate with the most votes wins, even if the votes are less than 50% of total votes polled.	Each voter votes for one candidate. To win, a candidate must receive more than 50% of the votes. If not, the top two candidates compete again in the second round.	Voters vote for a party, not a person. Seats in the Parliament are allotted in proportion to the total votes received by each party.
Sample Results (Vote Percentage)	Party A: 40% Party B: 35% Party C: 25%	Party X: 45% Party Y: 40% Party Z: 15%	Party M: 40% Party N: 35% Party O: 15% Party P: 10%
Who forms the Government?	Party A forms the government.	No one got 50% in Round 1. In Round 2, Party Y wins with 55%, and forms the government.	Seats distributed: M: 40; N: 35; O: 15; P: 10 Power is shared proportionately.

$$\text{Quota} = \left[\frac{\text{Total valid votes}}{\text{Seats to be filled} + 1} + 1\right] = \text{Minimum votes to win}$$

Counting and Transfer of Votes

1. Voters mark their preference.
2. First preference votes are counted for all candidates. Those who receive the minimum votes required to win (quota) are declared elected.
3. The candidate who receives the lowest votes is eliminated. Their votes are transferred to those who are mentioned as second preference on those ballot papers.
4. Process continues till the required number of candidates are elected.

Fig. 7.3. Single transferable vote system

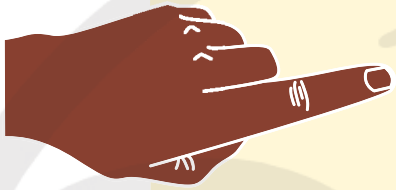
LET'S EXPLORE

Different democracies use different electoral systems. Make groups of 5–6 students. Each group will select six countries from different continents. Prepare and present a case study on the type of electoral system(s) operating in those countries, and discuss their latest election results of those countries.

The Laws

Let us now briefly examine the major legislations that govern the conduct of elections in India—The Representation of the People Act, 1950, and the Representation of the People Act, 1951. There also exists 'The Presidential and Vice-Presidential Act, 1952'. The Representation of the People Act, 1950 deals mainly with the allocation of seats and delimitation of constituencies, the preparation and revision of electoral rolls, and ensuring that every citizen above 18 years of age has the right to vote without discrimination. The Representation of the People Act, 1951 deals with all the other aspects of the conduct of elections and post-election disputes. It lays down rules for nomination of candidates, election campaigns, voting procedures, and resolution of disputes. Together, these Acts ensure the integrity, transparency, and accountability of India's electoral process.

The Representation of the People Act, 1951 also lists out the electoral offences and corrupt practices. For example:



- Any gift, offer, or promise made by a candidate (or with their consent) to a person in order to make them contest, withdraw, vote, or refrain from voting.
- Appealing people to vote or refrain from voting on the basis of religion, caste, race, community, or language.
- Candidates or any other person on their behalf are prohibited from taking any assistance in favour of the candidate from government-related personnel. This includes gazetted officers, judges and magistrates, armed forces personnel, police personnel, and excise officers.

Delimitation Commission

Did you know that the boundaries of your parliamentary and assembly constituencies are not permanently fixed? The boundaries of the constituencies change over time depending on shifts in the population density. Without delimitation, one Member of Parliament (MP) might represent five lakh people, while another might represent twenty-five lakh, defeating the objective of equal representation. Delimitation is the process of determining the number of seats and fixing the territorial boundaries in each state for elections to the Lok Sabha and the Vidhan Sabha. It aims to ensure that the ratio of seats to population is as close to equal as possible across all constituencies.

DON'T MISS OUT

Article 82 of the Constitution of India mandates the establishment of a Delimitation Commission. India has had four Delimitation Commissions—in 1952, 1963, 1973, and 2002. Can you find out the reason for the long interval between 1973 and 2002 with the help of your teacher?

Election Commission of India (ECI)

The Constitution of India has vested in the Election Commission of India (ECI) the superintendence, direction, and control of the entire process for the conduct of elections.

LET'S RECALL

The ECI is an autonomous permanent constitutional body that was established on 25 January 1950. It conducts elections to the Lok Sabha, the Rajya Sabha, the Vidhan Sabha, the Vidhan Parishad, the President, and the Vice President of India. Articles 324 to 329 of the Constitution provide for the establishment of an ECI and define its powers and duties.

At the State level, election work is supervised by the Chief Electoral Officer of the State, who is appointed by the ECI from among the civil servants in consultation with the concerned State Government. Various State Government officers, such as District Magistrates, Sub-Divisional Magistrates, and Tahsildars, etc., are also assigned election duties by designating them as District Election Officers, Returning Officers, Electoral Registration Officers, and so on.

Let us look at what the ECI actually does. Remember, you have already studied a few of its functions in Grade 8; let us now understand them in detail.

- **ECI creates the electoral roll:** The ECI sends official enumerators to every household to collect data about the eligible electors. As you have studied, only citizens who meet the eligibility criteria can vote. Based on the collected information, electoral rolls are prepared for each constituency, organised polling station-wise. Only those whose names appear on the roll are allowed to vote. The ECI also conducts Special Intensive Revision (SIR), which involves updating, verifying, and correcting the electoral rolls. Through SIR, it ensures that no eligible citizen is left out and no ineligible person is included in the electoral roll. This exercise ensures the addition of all voters, especially the young voters who have just turned 18 and may be left out due to a lack of awareness or any other reason. The SIR also deletes the names of the voters on the basis of death of the voter, change of residence, duplicate enrollment, and being

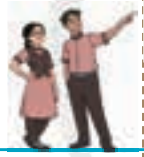
Fig. 7.4. An officer on election duty verifying voter's name from electoral roll

permanently untraceable. The ECI also gives time to raise claims or objections against the revised electoral roll and settles the claims and objections before publishing the final electoral roll.

THINK ABOUT IT

You will turn 18 in a few years. As a responsible citizen, you should register yourself as a voter. Find out the various steps of the procedure for registration and the list of required documents for the same. Discuss, with anyone who has just turned 18 and has registered as a voter, the ease or difficulty faced in the voter registration process.

LET'S EXPLORE



→ Do you know what ETPBS is?

ETPBS stands for Electronically Transmitted Postal Ballot System. It enables service voters to cast their vote on an electronically received postal ballot from their preferred location, which is outside their originally assigned voting constituency.

→ Find out who are classified as service voters and who can vote using ETPBS?

- **ECI decides the schedule and date for the election:** When the constitutionally mandated term of the Legislature ends, which is five years or when the Legislature is dissolved before the completion of its term, the ECI activates the machinery needed to conduct an election. While deciding the election schedule for a country as large and diverse as India, the ECI must consider several factors, such as weather conditions, agricultural cycle, school and university examination schedules, festivals, etc.
- **ECI registers political parties and allocates symbols:** Only political parties registered with the ECI can contest elections. Apart from the candidates affiliated to the political parties, independent candidates (who are not affiliated to any political party) can also contest elections. The ECI ensures inner party democracy by insisting upon the political parties to hold their organisational elections periodically. The ECI also classifies political parties as recognised national or state/regional parties or registered-unrecognised parties. National and state parties,

are allotted election symbols. The ECI also acts as a quasi-judicial body in addressing disputes regarding the recognition of political parties and the allotment of symbols.

DON'T MISS OUT

Every year, 25 January is celebrated as National Voters' Day, and there is a voters' pledge that goes as follows —

"We, the citizens of India, having abiding faith in democracy, hereby pledge to uphold the democratic traditions of our country and the dignity of free, fair and peaceful elections, and to vote in every election fearlessly and without being influenced by considerations of religion, race, caste, community, language or any inducement".

Fig. 7.5. Voters' Pledge
https://ecisveep.nic.in/pledge/englishpledge.php

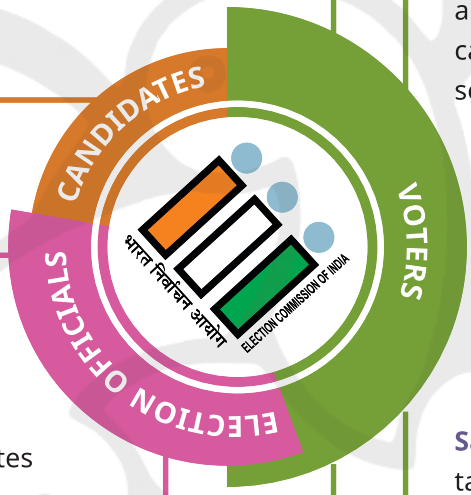
- **Ensuring free and fair elections:** For elections to be meaningful, the entire process must be conducted in a fair and transparent manner. If fairness is not ensured, public confidence in electoral institutions may gradually weaken. Consider situations in which candidates are influenced by personal favours, votes are not counted accurately, or some participants face difficulties in exercising their right to vote due to accessibility issues. In such cases, although elections may be held, their democratic value is reduced. This shows that democracy is not only limited to conducting elections, but also in ensuring that the electoral process is inclusive, impartial, and trustworthy.

  The ECI has taken several initiatives to make the process of elections more inclusive (see Fig. 7.7 and Fig. 7.8). These initiatives focus on infrastructure accessibility as well as technology-assisted inclusion, particularly for Persons with Disabilities (PwDs), Senior Citizens, transgender persons, and Particularly Vulnerable Tribal Groups (PVTGs). Voting from home for senior citizens above 85 years of age and persons with disabilities (PwDs) with a benchmark disability of 40% was extended across India for the first time during the 2024 General Elections.

Suvidha: An exclusive app for contesting candidates and political parties. Here, candidates can get all the nomination-related forms and updates. They can also use the app to apply for permissions (meetings, rallies, vehicles, loudspeakers, etc.) and check the real-time permission status through the app.

ETPBS (Electronically Transmitted Postal Ballot System): Developed for 'Service Voters', allowing them to receive and cast their postal ballots electronically from anywhere outside their constituency.

Voter Helpline App: This is a multipurpose app, which can be used for various voter services including registration, transposition, verification, etc. With the help of this app, voters can also get all the information related to election and related news and updates, too.



ERONET: Brings in seamless processing of forms and easy handling of the databases. It facilitates efficient form-processing, simplified dashboards, role-based access, and maintenance of E-Rolls.

Saksham App: The ECI has taken into consideration the need for easing the voter identification and registration process for persons with disabilities (PwDs) by offering customised services. The Saksham App provides a number of features to help PwDs in registration for voting, finding polling station, etc.

Sugam: A web-based application for managing vehicles diverted/ requisitioned from other departments for election work. All details of the departments, vehicle registration numbers, driver contacts, and periodical fuel allotment to the vehicles are uploaded on this app.

cVIGIL App: With this app, voters can report any Model Code of Conduct violations and election misconducts within minutes of witnessing them. The flying squads will navigate to the spot of incidence with the help of auto location to take prompt action.

Fig. 7.6. Digital ecosystem for electoral services and voter engagement

No Voter to Be Left Behind

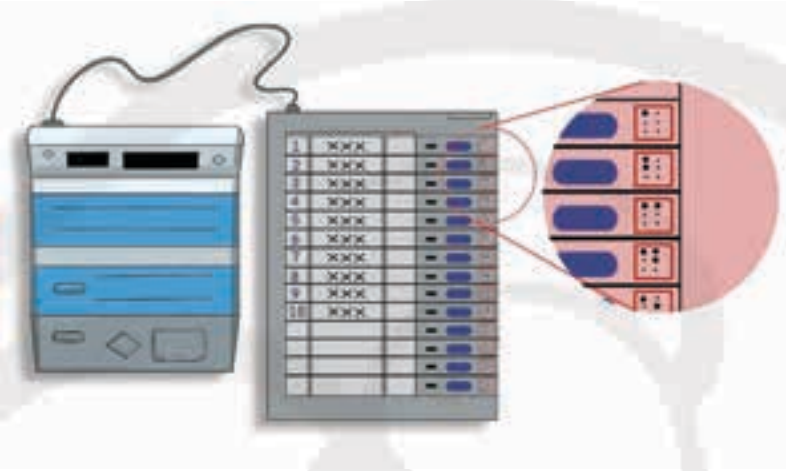


Fig. 7.7. EVM with Braille

Fig. 7.8. Voting from home for senior citizens

India's electoral exercise is unparalleled, and distinct from those in other parts of the world, with over 96.8 crore eligible voters spread across diverse regions and terrains. The ECI manages this exercise autonomously, ensuring free and fair elections nationwide. To carry out its functions, such as updating electoral rolls, candidate nominations, regulating campaigns, law enforcement, coordination among states, extensive security arrangements, counting of votes, declaration of election results, and dispute resolution, the ECI makes extensive use of information and communication technologies, and e-governance. The ECI has also taken several initiatives to make the process of elections more inclusive.

DON'T MISS OUT

The International Election Visitors' Programme (IEVP) is a flagship programme of the ECI for international cooperation and engagement with Election Management Bodies (EMBs) of other countries and international organisations. The ECI has signed Memorandums of Understanding (MoUs) with 28 EMBs and three international organisations, namely, the International Foundation for Electoral Systems (IFES), International Institute for Democracy and Electoral Assistance (International IDEA), and the United Nations.

Political Parties

How do we learn about various issues that affect citizens in their daily lives? How do voters get to know about the candidates contesting elections? How is the election agenda set? What role do political parties play in elections? There are often hundreds of contestants for each constituency. Most candidates belong to a political party, though some contest independently. Voters learn about candidates, their policies, their vision for development, and their positions on various social, economic, cultural, and political issues primarily through the political parties.

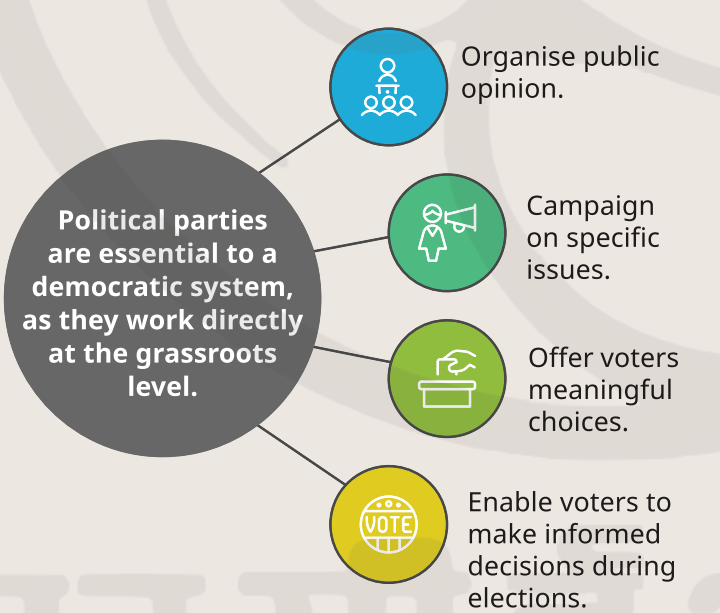


Fig. 7.9. Importance of Political Parties

They help ensure that the democracy functions effectively by providing governance, accountability, representation, and public engagement.

You will become eligible to vote in another four or five years; however, you must have heard or read about various promises that political parties make during the election campaigns. They present their agenda, elaborate on their promises in election rallies, and discuss and debate on issues of local, state, national, and international concern through various media platforms.

LET'S MAP

1. Choose any three states (including yours). Find the symbols of state parties belonging to those states and plot them on the given map of India. List down their major agenda, as mentioned in their manifesto in the latest Lok Sabha/Vidhan Sabha/Local Body Elections.

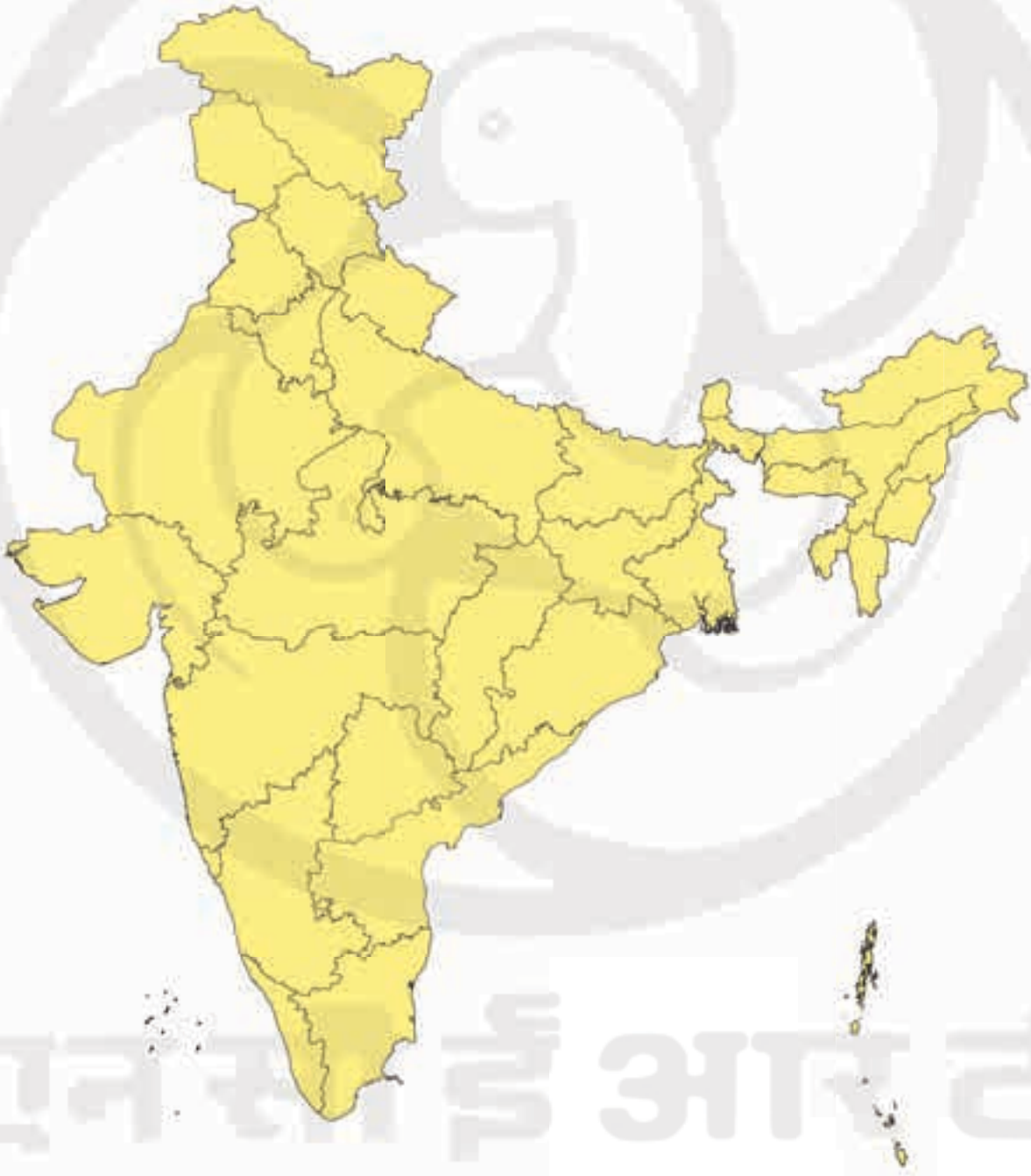


Fig. 7.10

2. Form groups of 4–6 students. Identify and compare the policy preferences on the following parameters for two political parties in the last Lok Sabha Elections using credible sources like party manifestos, newspapers, etc. Present the points of comparison in a poster using bullet points, symbols, colour coding, etc.

Policy area	Party's viewpoint	Any policy/law that aligns with the party's viewpoint	Source
Education			
National security			
Social welfare			
Environment			
Economy			
Health			

India has a multi-party system, which means that many political parties exist and compete in elections. This system reflects the country's rich diversity of languages, cultures, religions, and regions.

If there are so many political parties, can someone simply leave one party and join another whenever they wish? Yes, they can. However, once a person has been elected on a particular party's ticket, leaving that party is considered as Defection. Defection refers to abandoning or switching from the political party under whose banner the candidate was elected. This may involve joining another party or choosing to act independently of the party's decisions, particularly in matters such as voting in the legislature. Such actions, if understood in the context of party discipline and political stability, are considered as political opportunism. On the contrary, defection can also be viewed as a way to uphold conscience or respond to changing public expectations.

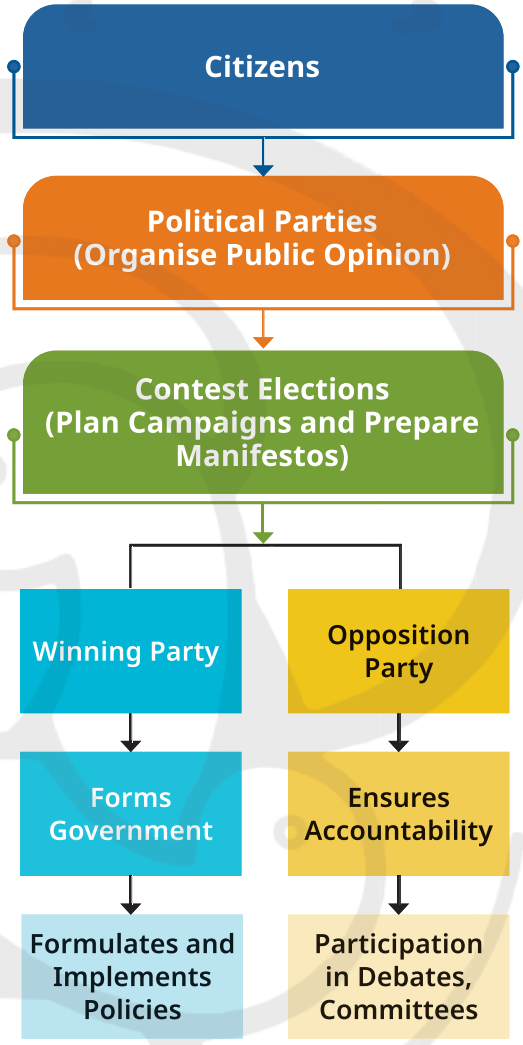


Fig. 7.11. Role of Political Parties

DON'T MISS OUT

The Anti-Defection Law in India was passed in 1985 through the 52nd Constitutional Amendment Act. The purpose of the law is to prevent defection, thereby providing stability to the elected government. According to this law, if a member of the Parliament or a State Assembly voluntarily gives up their party membership or votes against the party's instructions (whip), the member can be disqualified from the respective House. The Speaker or Chairman of the House decides what needs to be done in such cases.

You have already read that the Election Commission registers and recognises political parties. It does so based on specific criteria.

Criteria for National and State Party Recognition

Criteria for National Party Recognition (Any one condition should be fulfilled)

- Secures not less than 6% of valid votes polled in any four or more states in a General Election to the Lok Sabha or to the Legislative Assembly, and in addition, it wins four seats in the Lok Sabha from a single or more states.
- Wins at least 2% of seats in the Lok Sabha, and the candidates are elected from at least three states.
- It is recognised as a State Party at least in four states.

Registered Unrecognised Political Parties (RUPP)

- The parties that have not secured enough percentage of votes in the Legislative Assembly or the General Elections.
- Parties that have never contested elections since their registration.

Criteria for State Party Recognition (Any one condition should be fulfilled)

- Secures not less than 6% of the valid votes polled at a general election to the Legislative Assembly of the State concerned and, in addition, wins at least two seats in the Legislative Assembly of that State.
- Secures not less than 6% of the valid votes polled at a general election to the Lok Sabha from the State concerned, and in addition, wins at least one seat in the Lok Sabha from the State concerned.
- Wins at least 3% of the seats at the General Election to the Legislative Assembly of the State concerned or at least three seats in the Legislative Assembly, whichever is more.
- Wins at least 1 seat in the Lok Sabha for every 25 seats or any fraction thereof allotted to the State at a General Election to the Lok Sabha from the State concerned.
- Secures not less than 8% of the valid votes polled in the State at a General Election to the Lok Sabha from the State or to the Legislative Assembly of the State.

Fig. 7.12

LET'S EXPLORE

Find out the number of State parties and Registered Unrecognised Political Parties (RUPP). You may visit the website of ECI.

LET'S EXPLORE

The year 1967 witnessed an end to the era of single-party dominated elections in India and an era of alliances began. Even though various states witnessed politics of alliance starting from 1967, it was in 1977 that various political parties formed an alliance as the Janata Party against the backdrop of the National Emergency (1975–1977). The Janata Party formed the first coalition government at the national level, which was popularly known as the Janata Government. Since the late 1990s, the National Democratic Alliance (NDA), led by the Bharatiya Janata Party (BJP), and the United Progressive Alliance (UPA), led by the Indian National Congress (INC) until its dissolution in 2023 and subsequent reconstitution as the Indian National Developmental Inclusive Alliance, have been the major political alliances in Indian elections.

Find out the name and the composition (number and name of the national and state parties) of the alliances that won in the following elections to the Lok Sabha.

Year	Alliance Won	National parties	State parties
1977			
1999			
2004			
2009			
2014			
2019			
2024			

Challenges to Free and Fair Elections

In India, conducting elections for over 96.8 crore (in 2024) voters with thousands of polling stations and hundreds of political parties, spread across diverse regions and socio-economic realities, is a challenging task. For challenges such as misinformation, fake news, intimidation, etc., the ECI addresses them through RPA 1950 and

Fig. 7.13. Challenges to free and fair elections

1951, the Model Code of Conduct, EVMs, Voter Verifiable Paper Audit Trail (VVPAT), voters' awareness campaigns, and other measures. With constant vigilance and active citizen participation, elections can become more representative and the democracy more robust.

LET'S ANALYSE

Look at the road to free and fair elections above (Fig. 7.13). Fill in the empty potholes with challenges after discussing them with your teachers and parents. How can we overcome these challenges?

Before we move on...

- Casting a vote is a constitutional right as well as a duty of every citizen.
- Elections are the soul of democracy as they give every citizen an equal voice in the formation of a government.
- The various laws, such as the Representation of the People Act of 1950 and 1951, and bodies like the Delimitation Commission and the ECI, ensure that the entire process of elections remains free, fair, and transparent.

- Political parties play a fundamental role by presenting diverse view points in terms of programmes and policies, thus helping voters make informed choices.
- Despite numerous challenges to conducting free and fair elections, the ECI tries to ensure that elections at multiple levels are carried out impartially.

Questions and activities

1. What reforms have been introduced by the ECI to make voting more inclusive for the following groups?
   a. People with Disabilities
   b. Service Voters
   c. Senior Citizens—60 years and above; and 80 years and above
   d. Prisoners
   e. Persons in preventive detention
2. What are the various functions of the Election Commission of India? Which of these functions is most important for the conduct of free and fair elections? Explain.
3. Elections are the soul of a democracy. Do you agree? Why or why not?
4. Explain at least three differences between the national and state/regional political parties.
5. Why should you vote? Arrange the following in the descending order of your choice. Discuss the reasons for your choice.
   a. Opportunity to choose my representative
   b. Makes me a responsible person
   c. Opportunity to change the non-performing representative
   d. Strengthens democracy
6. What is the Special Intensive Revision (SIR) initiative of the ECI? Explain the objectives and the necessity of conducting SIR.

7. Match the political party name with its symbol.

Political Parties Name	Symbol
Aam Aadmi Party (AAP)	
Bharatiya Janata Party (BJP)	
Bahujan Samaj Party (BSP)	
Communist Party of India (Marxist) [CPI (M)]	
Indian National Congress (INC)	
National People's Party (NPP)	

8. Read the case study below and answer the following questions.

Ishani and her mother were in the local market, day before the state assembly elections. She noticed wall writing and campaign posters pasted everywhere. Large groups of campaigners were distributing pamphlets and raising slogans in support of the respective candidates. Ishani has turned 18 and will be voting for the first time. She had registered to vote through the ECI's online portal. The next morning, she, along with her mother and her disabled elder brother, went to the polling station, which was well guarded by the police personnel. A wheelchair was made available to them, and volunteers guided them to the polling booth. Inside the polling booth, there were only three people who were performing all duties. Ishani had forgotten her voter ID card and Aadhaar card, but she was surprised as no one asked for them. After casting her vote, she was also able to see the VVPAT slip. While leaving, she wondered how the police personnel vote, as they must be on duty from early morning till late evening. When she went home, she narrated her entire experience to her 89-year-old grandmother, who cast her vote from home.

a. What initiatives were taken by the ECI to enable the voters to cast their vote?

b. If Ishani was allowed to vote even without carrying her Voter ID card or Aadhaar card, which other document might she be carrying that is valid for voting?

c. Cite the examples of violations of the Model Code of Conduct.

d. Give a suitable title to the passage.

e. Find out how the police and army personnel cast their votes.

9. A comparative chart of three countries is given below. Based on the information given in the chart, answer the questions.

	Country A	Country B	Country C
Political Dimension	Written constitution, periodic elections, voting rights, party system varies from two-party to multi-party.	Written constitution, periodic elections, voting rights, one political party.	Written constitution, monarchy, no voting rights, no political party.
Economic Dimension	Average standard of living.	Above-average standard of living.	High standard of living.

a. What is the difference between having a voting right in a country with a multi-party system and another with a single-party system?

b. In which of the above countries would you like to stay and why?

10. What are the challenges to conducting free and fair elections?

11. On the Stage.

Elections are to be held in your school for the posts of Head Girl, Head Boy, and Sports Captain. Assume the roles of an Election Commissioner, Returning Officer, Polling Agent, Candidate, Campaigner, Polling Officer, Police Personnel, and a Journalist, and perform their roles while ensuring free, fair, and transparent elections.

12. Try and make videos or audios on topics like: My Vote My Nation; No Voter to be Left Behind; How to Eliminate the Ill of Money Power, etc.

13. Select one national or state political party. Using authentic and reliable sources such as the Election Commission of India (ECI) website, the official website of the selected political party, and newspapers. Prepare a comparative chart of the last two State Legislative Assembly elections. The chart should include the following details for the chosen party:

    a. Some promises made in the Election manifesto

    b. Percentage of votes polled

    c. Number of seats won

    d. Number of women who contested

    e. Number of women candidates elected

    Present the data for both elections in a clear and comparative format, citing all sources used.

14. Do you think 'One Nation, One Election' can improve the efficiency of the electoral process? Divide the class and discuss into two groups—one to examine its potential advantages and the other to analyse its limitations.

Notes

Chapter 8
Building Blocks in Economics: The Problem of Choice

The Big Questions

1. *What does economics deal with?*
2. *What are the key questions in economics?*
3. *How do different economic systems address these questions?*

If you had to choose, would you spend your pocket money on snacks or save it for a new pair of shoes? If your school library had only five copies of a new novel but 20 students wanted to read it, who would get the book first? Can the students share them or should the school buy more copies? Which type of crop should a farmer grow based on the condition of the soil, rainfall, and **market** prices? Should an enterprise employ more labour or capital in the production process? Should the government spend more on building highways or hospitals?

Market: A place where buying and selling of products and services takes place. It could be a physical market or a virtual one on the internet.

These are not random questions; rather, they are examples of economic choices that individuals, enterprises and governments have to make.

Some of our preferences are *needs*, such as essentials like food, water, and shelter, while others are *wants*, like gadgets, vacations, or luxury items. Human wants are unlimited and keep changing; for instance, people may want to upgrade from a bicycle to a motorbike and then to a car.

Needs

Wants

Fig. 8.1. Needs vs wants

LET'S EXPLORE

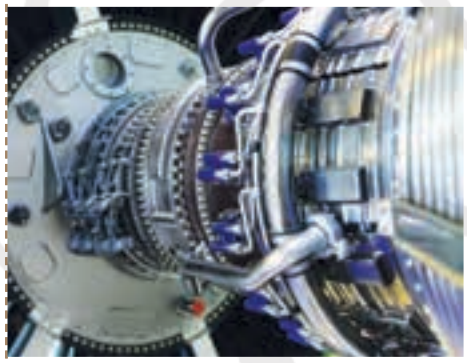
→ List three things your parents bought this month. Can you classify them into needs or wants?

→ Do you think having too many wants may create problems? Why or why not?

Choices and Limited Resources

Resources: Factors used for the production of goods and services. These can be natural, like water and coal, or human-made, like capital and technology.

Medical equipment



Aircraft manufacturing

Refrigerator manufacturing

Fig. 8.2

Resources are required to satisfy human needs and wants. In Grade 8, you have learnt about factors of production—land, labour, capital and technology—which are used for the production of goods and services. However, both natural and human-made resources are limited in quantity. They can be put to many alternative uses, such as allocating money to buy fruit or a pair of shoes. Not just households, economies also have to decide how to use their scarce resources in the best possible way to meet unlimited wants and improve people's quality of life. For example, pictures in Fig. 8.2 show the alternative uses of steel.

When one alternative is chosen, the other options are given up. The value of what is given up is known as the **opportunity cost**. Let us understand this through an example. Imagine that a farmer has a piece of land and can choose to grow either barley or wheat on it. With limited land, water, and labour, the farmer must decide how much of each crop to produce. Consider the following table, which

shows various combinations of quantities of barley and wheat that can be grown by the farmer.

Combination	Barley (in kg)	Wheat (in kg)
A	0	100
B	25	90
C	50	70
D	75	40
E	100	0

When these combinations are plotted on a graph (Fig. 8.3), where the x-axis represents the quantity (in kg) of barley grown, and the y-axis represents the quantity (in kg) of wheat grown, a downward sloping curve is derived.

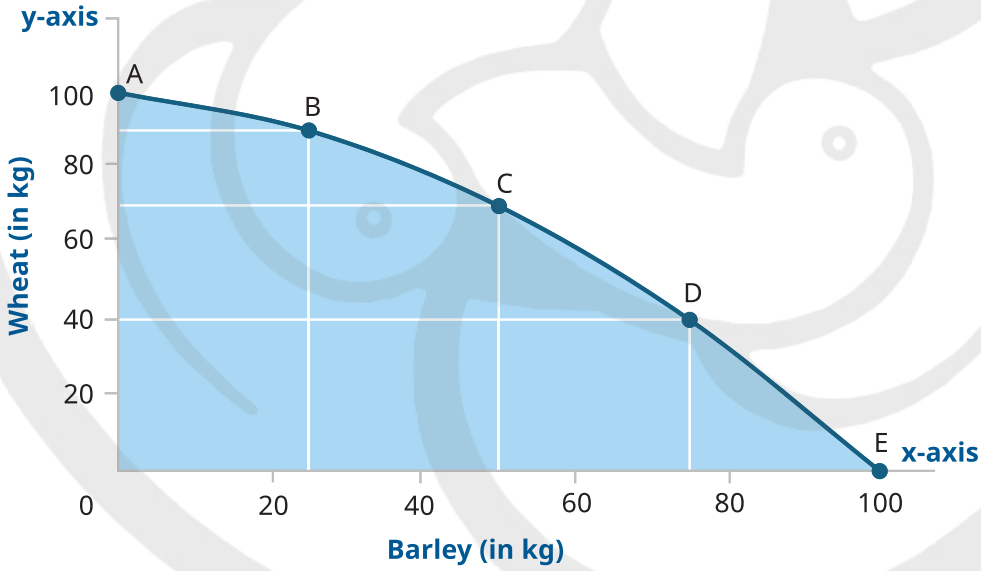


Fig. 8.3. Production Possibility Curve

This is called the **Production Possibility Curve (PPC)**, which shows the trade-off between barley and wheat produced. As the farmer moves from point A to E, he produces more barley and lesser wheat. However, to grow more barley, some wheat must be sacrificed—this is the opportunity cost of growing barley. All the points on the PPC show the maximum output that can be produced through efficient use of resources by avoiding wastage. This helps in better planning and decision-making by enterprise and the governments.

Production Possibility Curve (PPC): The curve showing different combinations of goods that can be produced using all available resources.

LET'S EXPLORE

→ Ask your parents about how they make choices for everyday purchase. What is the opportunity cost of making a particular decision?

→ How do you decide to spend your time? Is time a scarce resource?

What does Economics Deal With?

The word **'Economics'** comes from the Greek word *oikonomia*, which in turn is composed of two words: *oikos*, which is usually translated as 'household'; and *nemein*, which is best translated as 'management'. So, economics refers to household management. In the case of limited resources and unlimited wants, not just families but also nations must plan how to use their resources efficiently.

Since resources have competing uses, individuals, enterprises, and governments must decide how best to allocate them, as these decisions affect the well-being of people and society as a whole. The discipline of Economics studies how choices are made by optimising the use of limited resources to satisfy the needs and wants. It explains how different **economic entities**—consumers, producers, governments, and financial institutions—interact in an economy. For example, how people work and earn wages, how wealth and resources are distributed, how prices are determined in the market, how education and technology drive investment, and how government policies and trade influence prices in the market, employment and so on.

However, good decisions rely on **data** and analysis, not guesswork. For example, families allocate their money between essential items (such as food, medicines and school supplies), non-essential items (such as jewellery, entertainment and restaurant meals) and savings. Governments use revenue from taxation to plan expenses on infrastructure and welfare programs. Businesses study market trends and new innovations to better serve customers and make profits. Economists study the available alternatives, associated opportunity costs, and potential outcomes to help individuals, enterprises, and institutions make decisions. They use data from government reports like economic **surveys** and financial statements of companies, and their analysis helps to understand the potential risks and opportunities. The scope of their work includes:

Economy: The state of a country or region in terms of the production and consumption of goods and services, and the flow of money.

Economic entities: One who participates in an economic activity, for example, producers, consumers, government, and enterprises.

Data: Facts and statistics collected together for reference or analysis.

Surveys: A systematic method for collecting and analysing data related to the economic conditions and behaviours of populations.

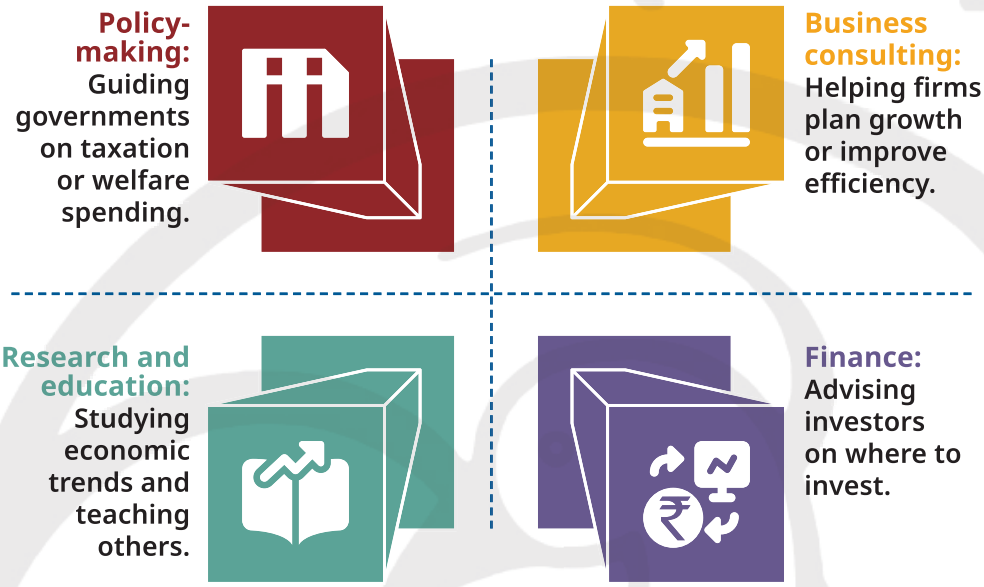
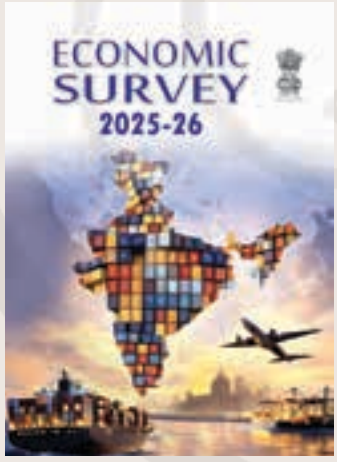


Fig. 8.4. Scope of work of Economists

Economic Survey: A Report on Indian Economy



The Economic Survey of India is an important annual document prepared by the Ministry of Finance and presented in Parliament before the Union Budget. It reviews the country's economic performance during the past year and analyses various sectors of the economy such as agriculture, industry, services, and other areas like employment, inflation, education, health, infrastructure, etc. It discusses future challenges and opportunities for the economy. This helps people understand how the Indian economy is performing and what steps the government may take to improve growth and development. It also acts as a blueprint for the upcoming Union Budget by providing crucial insights for policymakers while making **policy** related decisions. It is also useful for citizens as it explains economic data in a clear manner.

You can have a look at the latest economic survey at—

https://www.indiabudget.gov.in/economicsurvey/

Policy: A course or principle of action adopted or proposed by organisations or individuals.

Key Questions in Economics

Any mismatch between unlimited wants and limited resources gives rise to three key questions that the discipline of economics seeks to address.

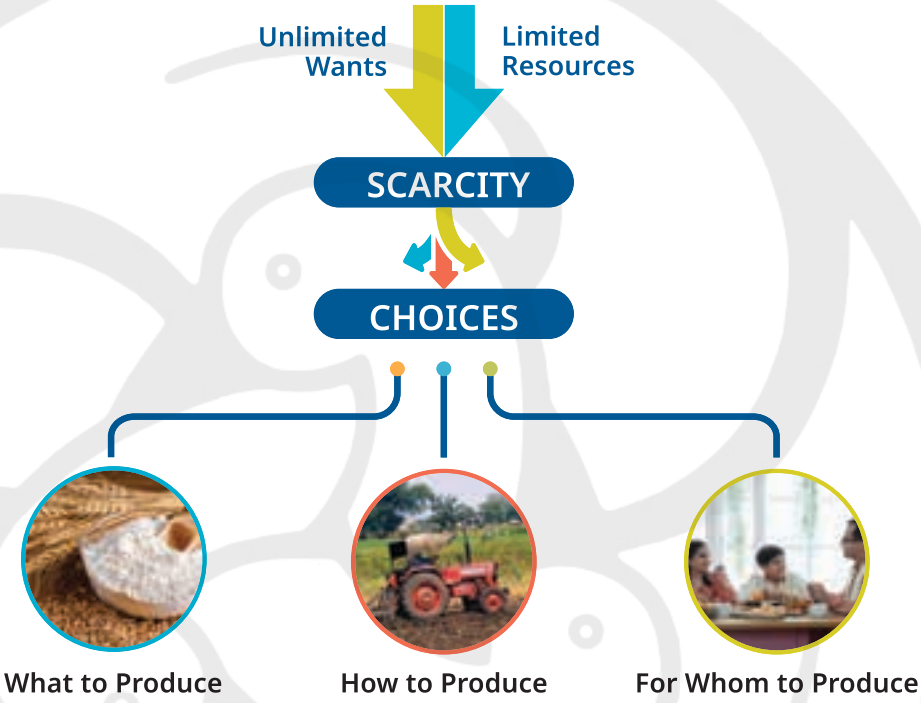


Fig. 8.5. Key questions that economics seeks to address

What to Produce and for Whom?

Economy: System of production, distribution, trade, and consumption of goods and services within a specific area such as a country.

This fundamental question concerns which goods and services, and in what quantities, should be produced to meet the needs of the **economy** over a given period. For instance, should farmers produce water-intensive crops such as sugarcane and rice, or drought-resistant crops such as millets and pulses? Producing sugarcane yields high profits and supports industries such as sugar, whereas producing millets and pulses saves water, improves soil health, and promotes sustainable agriculture. Here, the opportunity cost of producing sugarcane is the forgone gains from saved water and improved soil health. This type of decision reflects the trade-off between short-term economic gains and long-term sustainability by accounting for the opportunity costs of various alternatives. Similar trade-offs have to be made by companies, governments, and consumers.

The question of 'for whom to produce' delves into the purpose of goods and services produced, how they are produced and distributed and who benefits from their production. Since resources are limited

and people have different needs, income levels, tastes, and lifestyles, producers decide which group of consumers they want to serve. For example, shoes are a common product, but different types of shoes are produced for different groups of people depending on their needs and purchasing power.

- School shoes are produced for students. They are usually simple in design, durable, and affordable.
- Office wear shoes are made for working professionals. These shoes focus on comfort, formal appearance, and quality, often using leather or polished materials.
- Sports shoes are produced for athletes and fitness enthusiasts. They are designed using special rubber soles and lightweight materials to provide grip, flexibility, and support.
- Casual shoes or slippers are produced for daily use by people and need to be comfortable yet affordable.

The decision of 'for whom to produce' also affects the materials used. For instance, leather shoes are generally targeted at office-goers and high-income customers, whereas rubber or synthetic shoes are aimed at sports players, factory workers, or people who need affordable and durable footwear. Producers analyse what consumers like, how much money they have, and how much demand there is before deciding what to make. This makes sure that limited resources are used well and not wasted.

THINK ABOUT IT

Should the government allocate more funds to healthcare and education or defence and space exploration? Why?

How to Produce?

After deciding what to produce, the next question is how to produce it—which methods, resources, and technologies should be used. For example, whether a manufacturer should automate processes or employ more labour for producing goods.

To answer this question, producers must select the right mix of factors of production—land, labour, capital, and technology. Production can be labour-intensive (using more workers and less machinery) or capital-intensive (using more machines and technology). Usually, economic activities related to agriculture and handicrafts rely more on labour, whereas industries such as steel and automobile manufacturing depend more on machinery.

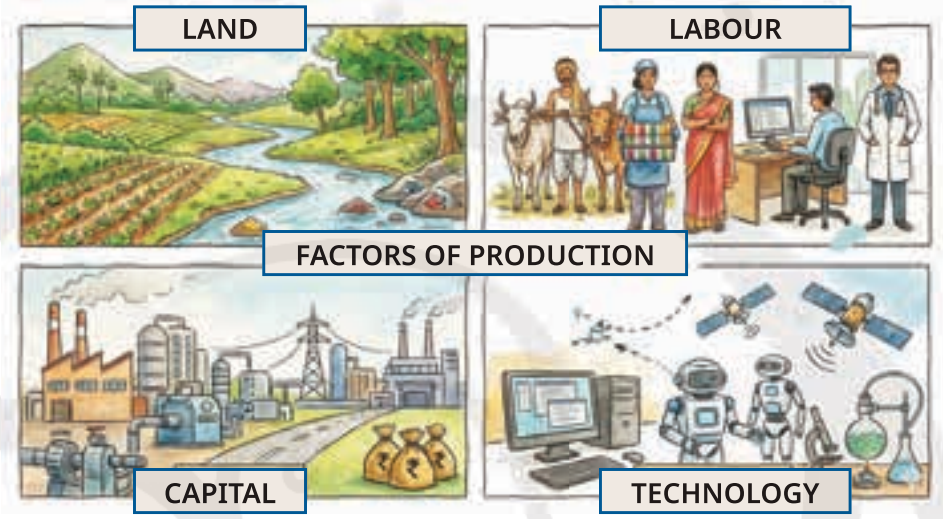


Fig. 8.6. Factors of production

However, the choice of the production technique employed depends on the cost of capital, choice of technology, and the nature of the product. The availability of various factors of production and their relative cost, and the laws as well as regulations in the country determine the decision by enterprises to address this key question. A garment manufacturer must choose between labour-intensive and capital-intensive methods of production. If machines are expensive, the firm will rely more on labour, but if machines become affordable, it may shift to automation. The choice also depends on the level of technology available—advanced technology encourages machine use, while limited technology leads to manual production. The nature of the product is important too, as customised or designer clothes require skilled labour, whereas mass-produced garments are better suited for machines. Additionally, if labour is cheap and easily available, labour-intensive methods are preferred, but if labour is costly or scarce, machines become more efficient. Government laws and regulations, such as labour laws or incentives for machinery, also influence this decision.

Economic Systems and How Choices are Made

In an economy, the answers to these three key questions depend on how the resources used to produce goods and services are organised and who controls the decision-making regarding them. The system that defines the mechanisms for the production, consumption, and distribution of goods, services, and resources is known as the economic system of a country.

The three kinds of economic systems are:

Planned Economy

In a **planned economy**, a central planning authority of the government, such as the planning commission, makes all major economic decisions in the market, that is, what and how much goods will be produced, how they will be made, and who will get to use them and at what prices. The government has ownership in most resources and sectors like land, factories, banks, and transport. With limited private ownership, enterprises usually follow the central authority's targets rather than market demand, and are heavily regulated by the government through strict permits and licenses to produce goods and services. However, this prevents a large number of enterprises to operate in the market and thus restricts competition among private enterprises. As a result, there is little motivation among enterprises to improve quality or innovate. Some examples of planned economies are the former Soviet Union, North Korea, and Cuba.

Planned economy: An economic system where the price and allocation of resources, goods, and services are determined by the government.

Market Economy

In a **market economy**, the questions of what, how, and how much to produce are addressed mainly by the forces of demand and supply with little government intervention. Often, the government acts like a referee in a football match. The government ensures safety, law, and order, and does not control prices or production. The ownership of factories, shops, land, and other resources, largely rests with individuals and private companies. Many producers offer similar products, which encourages better quality, lower prices, and innovation in production of goods and services. Some of the prominent examples include the US, Japan, and Hong Kong. However, governments play an important role even in these economies.

Market economy: An economic system in which the allocation of resources, and the prices of goods and services are determined primarily by market forces. The role of the government is to provide public goods and physical infrastructure.

- In your opinion, should the government completely stay out of enterprise decisions?
- Can you think of an example where government action helped or harmed an industry or sector?

Fig. 8.7. Role of government and private ownership in a market economy

Mixed Economy

Mixed economy: The market system of resource allocation in which the government and private sector coexist and compete with each other in the market. The private players are regulated by the government. Almost all economies are mixed.

A **mixed economy** combines features of both market and planned economies. In this system, both private individuals and the government play important roles in making economic choices and decisions. The market guides profit-making enterprises, innovation, and competition just like market economy, whereas after economy, the government plays a role in regulation and provision of public goods. However in a mixed economy, we also find large public sector companies that play a very important role in the market. In reality, most economies have features of mixed economic systems that allow the existence of private ownership with some degree of government regulation.

A few examples of mixed economies include India (post-1991), China (post-1978), Germany, and Sweden. Even market economies like the US and Singapore have significant government involvement in the market.

Public goods: Goods and services that are available to all individuals without anyone being excluded. The use of public goods by some people does not prevent others from using them—for example, parks, roads, police services, street lights, and basic education.

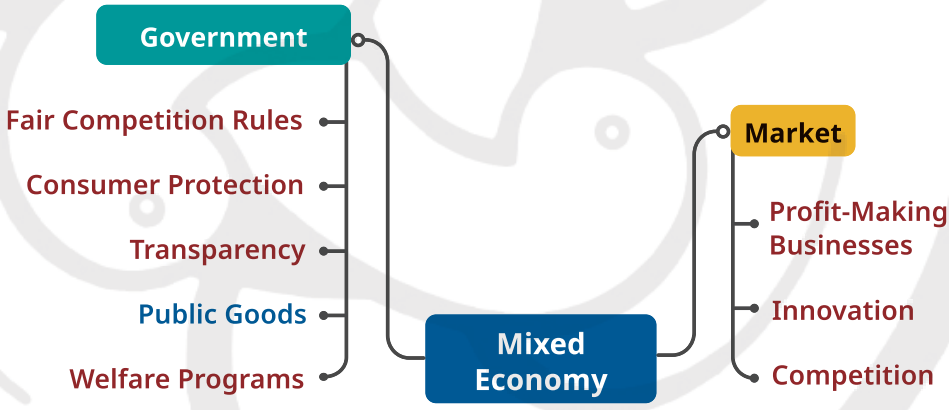


Fig. 8.8. The role of government and market in a mixed economy

DON'T MISS OUT

India's economic system has also evolved over time in response to changing needs and challenges. In the decades after independence, India followed a more state-led approach similar to a planned economy. The government played a major role in controlling industries, allocating resources, and regulating production through licenses and permits, while many key sectors, such as banking, transport, and heavy industries were dominated by the public sector. However, by 1991 the country faced serious economic difficulties. As a result, the government introduced major economic reforms that reduced excessive regulations,

encouraged private enterprise, opened the economy to global trade and investment, and increased competition. These reforms gradually shifted India toward a more market-oriented system while still retaining an important role for the government. You will study more about these changes in your higher grades.

This chapter has shown that economics is essentially about making choices in a world of scarce resources and unlimited wants. Individuals, enterprises, and governments must constantly decide how best to use available resources, keeping in mind the opportunity cost of each decision. These choices are reflected in the three key economic questions—what to produce, how to produce, and for whom to produce. Different economic systems provide different ways of answering these questions, but most modern economies combine elements of both market and planned economic systems. Understanding these ideas helps us appreciate how everyday decisions, public policies, and economic systems together shape the production, distribution, and use of resources in an economy.

Before we move on...

- Economics deals with how individuals and societies make choices to use limited resources to satisfy unlimited wants. Every choice involves an opportunity cost—giving up one option for another.
- Every economy faces three central questions—what to produce, how to produce, and for whom to produce—to decide how best to use scarce resources.
- Different systems answer these questions differently: market economies rely on private decisions, and demand and supply, planned economies on government control, and mixed economies combine both.

Questions and activities

1. Why do you think people's wants keep changing over time? How does this affect production in an economy? Why cannot all our wants be satisfied?
2. 'Human wants are unlimited and keep changing'. How do you think this constant desire for more creates pressure on the environment? Can the fulfilment of wants and the extraction of resources be balanced?

3. Can you think of a resource in your region that is scarce but used wastefully? How could it be managed better?

4. Which economic system—market, planned, or mixed—do you think gives people the most freedom? Which economic system is best suited for promoting innovation? Why?

5. Critically examine why pure economic systems rarely exist in reality. Assess the limitations of such systems and justify why a mixed economy is often considered a more practical and effective approach in real-world contexts.

6. A student has ₹100 and must choose between buying a notebook or saving the money for buying a tennis racket later. Which economic concept best explains this situation?

   (a) Demand
   (b) Opportunity cost
   (c) Production
   (d) Inflation

7. How does understanding opportunity cost improve the quality of economic decision-making?

8. Can effective economic decisions be made without reliable data? Support your answer with an example.

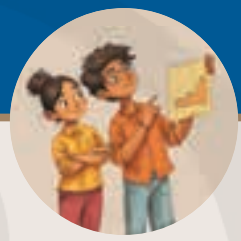
9. Analyse how a country's present economic choices can shape its long-term future. Why is it important to consider future consequences while making economic decisions today?

10. Identify a news article from any newspaper of your choice about a product or commodity (such as vegetables, fruits, fuel, or electronics) where producers or companies are deciding how much to produce or supply. Write 2–3 sentences explaining the example you found and why the production decision was made.

Notes

Chapter 9

The Price Puzzle: What Drives the Market



The Big Questions

1. *What are the factors that influence the demand and supply of goods and services in a market?*
2. *How are prices of goods and services determined through demand and supply interactions?*
3. *What is market equilibrium, and does it exist in the real world?*
4. *How and why does the government intervene in the market?*

What happens if the mangoes your parents bought last week are now half the price? Why are vegetables expensive in the morning but are cheaper in the evening? Or why does the price of onions seem to change every few months? Why does the same flight seat cost ₹3,000 on one day but ₹9,000 on another? Why do shops and malls announce discounts at certain times of the year? Have you ever wondered about the reasons behind these situations in a market?

In the Grade 7 chapter 'Understanding Markets', you learnt about the interaction among buyers and sellers and how prices adjust when the seller sets them too high or too low. Prices do not change randomly; they react to what people want, how much is available, the seasons, festivals, trends, and sometimes even rumours! Whether it is snacks, movie tickets, mobile phones, or vegetables, the prices of all goods and services are determined by two powerful forces constantly at work, that is, demand and supply.

This chapter explores the concepts of demand, supply, and price determination and provides a glimpse of the outcomes of their interplay in real-world situations.

Demand

Purchasing power: It is a measure of how much one unit of a particular currency can buy at a particular time.

As the mango season approaches, the prices of mangoes are generally high, so people tend to buy them in smaller quantities. But when prices start falling, people prefer to buy larger quantities. *The quantity of a product that people are willing and able to buy at a particular price, depending on their needs, preferences, season, trend, and income, is called the demand for the product.* Demand is not just the desire to buy something; it is the willingness complemented by the ability or **purchasing power** to buy it.

Fig. 9.1. P= Price, Q= Quantity

As with mangoes, when the price of any product rises, the quantity demanded decreases, and when the price falls, the quantity demanded increases. This phenomenon is called the **Law of Demand**, which highlights the inverse relationship between the price of a product or service and its quantity demanded.

Let us understand this with an example. At the beginning of the mango season, the price of mangoes was very high (₹150 per kg). Srivalli, a consumer, bought only 1 kg. As more mangoes became available in the market, over time, the price fell to ₹100, so she bought 2 kgs, and later, when the price dropped to ₹50 per kg, she bought 3 kgs. The quantity of a good or service that an individual consumer wants to buy at different prices, keeping other factors constant, is known as **individual demand**. For Srivalli, the individual demand is shown in the table below, which is also known as the demand schedule. This demand schedule, when represented graphically, is called the demand curve.

Demand Schedule

Price of mango per kg	Quantity demanded by Srivalli
₹ 150	1 kg
₹ 100	2 kg
₹ 50	3 kg

Demand Curve

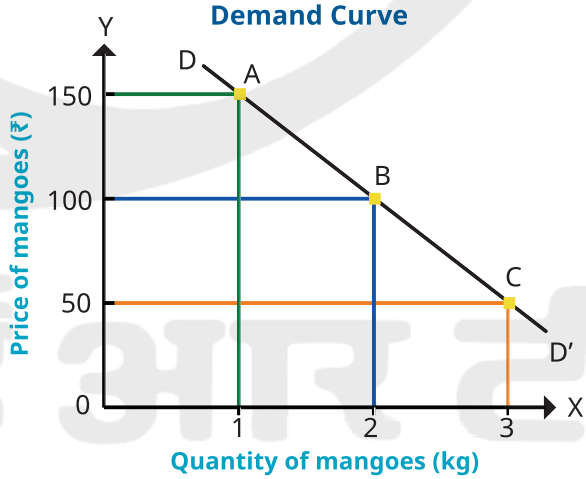


Fig. 9.2. Individual demand schedule (left) and Individual demand curve (right)

The vertical y-axis in the fig. 9.2 (right) represents the price of mangoes (in ₹), and the horizontal x-axis shows the quantity demanded of mangoes (in kg). Srivalli bought 1 kg of mangoes at ₹150 (represented at point A). But as the price fell to ₹50, she bought 3 kg (at point C). When the points of intersection, such as A, B, and C, are connected, the downward sloping line DD' is called the demand curve. The downward-sloping individual demand curve represents the inverse relationship between price and the quantity of a product demanded by the buyer assuming other factors like income, taste, etc. to be constant.

What happens when others want to buy mangoes too? The total quantity of mangoes demanded by all potential buyers at different prices is known as **market demand**, that is, the sum of all individual demand. Let us consider two more consumers, Alex and Israt, whose individual demand is given in the schedule below:

Price	Q1 (Srivalli)	Q2 (Alex)	Q3 (Israt)	Market Demand (Q_D)
₹150	1 kg	2 kg	3 kg	6 kg
₹100	2 kg	4 kg	6 kg	12 kg
₹50	3 kg	6 kg	9 kg	18 kg

Table 9.1. Individual and market demand schedule

By summing the demand of all three consumers, Q1+Q2+Q3, the market demand Q_D is derived. When the market demand is plotted at

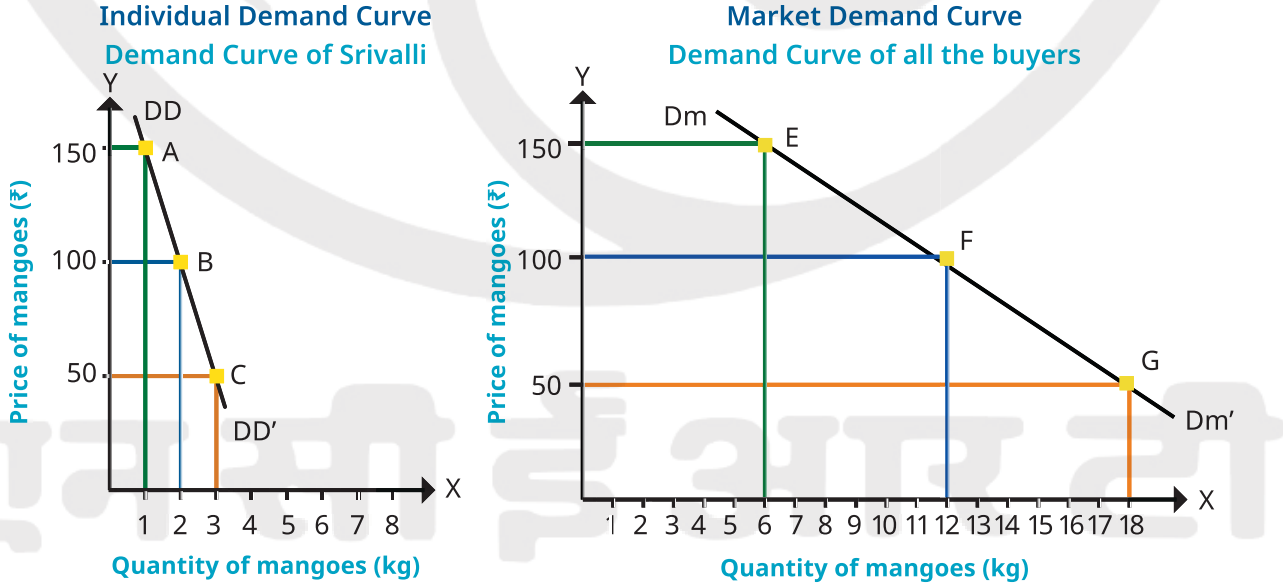


Fig. 9.3. Individual demand curve (left) and market demand curve (right)

different prices, we get the market demand curve DmDm' as shown in fig. 9.3 (right).

DON'T MISS OUT

Did you notice that the market demand curve is flatter than Srivalli's individual demand curve? Why is that? Market demand aggregates many consumers, so the same price change creates a larger total quantity response. When the price falls from ₹150 to ₹50, Srivalli's demand increases by 2 kg, but market demand increases by 12 kg, making the market curve flatter and more responsive.

Other Determinants of Demand

When a new model of a popular smartphone is launched, long queues and pre-bookings indicate the rush to buy it, even if it is more expensive. So, the demand for a product doesn't necessarily change only because of price. Many other factors influence how much people want to buy, even when the price of the good or service remains the same. Let us see some of these factors at play.

Price of related goods

Related goods: Products whose demand is interconnected, meaning a change in the price or availability of one directly affects the demand for the other.

The demand for a good can be affected by changes in the prices of **related goods**. There are two types of related goods:

a) **Substitute goods** – These goods can replace each other, like tea and coffee. If tea's price remains the same while coffee becomes more expensive, people who consume coffee may switch to tea, thereby increasing its demand. If Srivalli cannot afford to buy mangoes at the market price, she may buy bananas. When the price of a good rises, people tend to replace it with another relatively cheaper alternative. Hence, if the price of the substitute good increases, the demand for the other related good will increase.

b) **Complementary goods** – These goods are generally used together to provide utility to the consumer, for instance, smartphones and earphones, or cars and petrol. If the demand for printers increases, the demand for printer cartridges may also rise, even though the price of cartridges remains unchanged. Similarly, if movie tickets become more expensive, people may refrain from going to the cinema, so demand for popcorn sold in cinema halls may also fall.

Income of the consumer

When household income rises, consumers can afford to buy more or choose higher-quality products. A rise in income generally makes people feel more confident about their ability to spend, so the quantity demanded for several goods rises, even if prices remain the same.

Taste and preference of the buyer

Every consumer has specific tastes and preferences for certain products, which determine their demand. For example, Srivalli likes mangoes and cannot substitute them for oranges, even if oranges are cheaper than mangoes.

The demand also depends on the size and composition of the nation's population. For example, being the most populous nation, India's domestic consumer demand contributes to its economic growth. In addition, the population's composition shapes the demand for types of products and services. More children indicate increased demand for sports shoes, more working adults means a higher demand for formal shoes, and more elderly people imply a higher demand for comfortable or orthopaedic shoes.

THINK ABOUT IT

What happens when you consume the first mango? It tastes delicious, right? The second one is good? The third one and so on? You are barely interested in eating mangoes by this point. Why do you think this happens?

This is because the additional utility or usefulness derived from a product declines as more of it is consumed. This is known as the **diminishing marginal utility** principle in economics. As the utility derived from a successive quantity of products falls, the willingness to pay for the products also decreases, so demand falls.

Seasonality

Have you seen crowded bookshops at the beginning of the new class session? Or customers flocking to sweet shops during the festive season? Or sweaters and jackets being demanded during the winter season? This is because individuals may demand different products at different times of the year, and these changes often depend on weather, festivals, and cultural habits rather than the price of the good.

Future price expectations

Future price expectations influence current demand even when current prices have not changed. If consumers expect prices to fall, they postpone purchases, decreasing present demand. If they expect prices to rise, they buy immediately, increasing present demand. For example, people delay buying durables before Diwali or the New Year, expecting festival discounts.

LET'S EXPLORE

- → Create your own demand schedule for buying notebooks at different prices. At what price would you buy the most? At what price would you stop buying altogether? What could be the reason behind your choices?
- → Ask your family members if they postponed or preponed buying any product because of future expectations of changes in price?

Supply

Supply is the quantity of a product that sellers are willing and able to offer at a particular price. As price increases, quantity supplied increases, and as price decreases, quantity supplied falls. This is because higher prices increase profitability, incentivising producers to increase output, and also attract new firms to the market. This is known as the law of supply. **Individual supply** is the quantity a particular seller offers at different prices.

Supply Schedule

Price of mango per kg	Qs by seller A
₹ 50	1 kg
₹ 100	2 kg
₹ 150	3 kg

Supply Curve

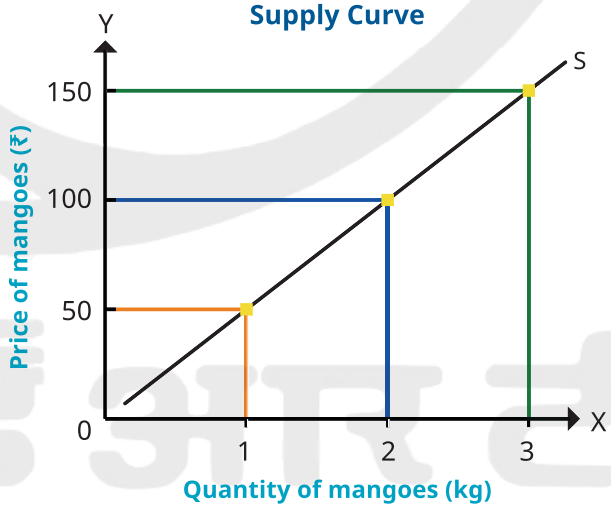


Fig. 9.4. Individual supply schedule (left) and Individual supply curve (right)

At the start of mango season, supply is low, making mangoes costly. Mid-season, the supply increases and prices fall. This shows how prices depend on the interaction between demand and supply. When supply is less than demand, prices rise; when supply exceeds demand, prices fall.

Market supply is the sum of all individual supplies. For example, when mango prices are ₹50/kg, a seller supplies 1 kg; at ₹100/kg, he supplies 2 kg; at ₹150/kg, he supplies 3 kg. This pattern of higher prices leads to greater quantity supplied, which gives an upward-sloping supply curve as shown in Fig. 9.4.

Now consider three sellers, A, B, and C, in the market, who offer mangoes for sale in different quantities at different prices. So, their supply schedule is as follows:

Price	Seller A	Seller B	Seller C	Market supply (kg) ($A+B+C=Q_s$)
₹ 50	1	3	2	6
₹ 100	2	4	6	12
₹ 150	3	7	8	18

Table 9.2. Supply schedule of sellers

By combining the quantity supplied by all three sellers (A+B+C), the market supply Q_s is derived. By plotting the market supply with corresponding prices, the market supply curve is obtained.

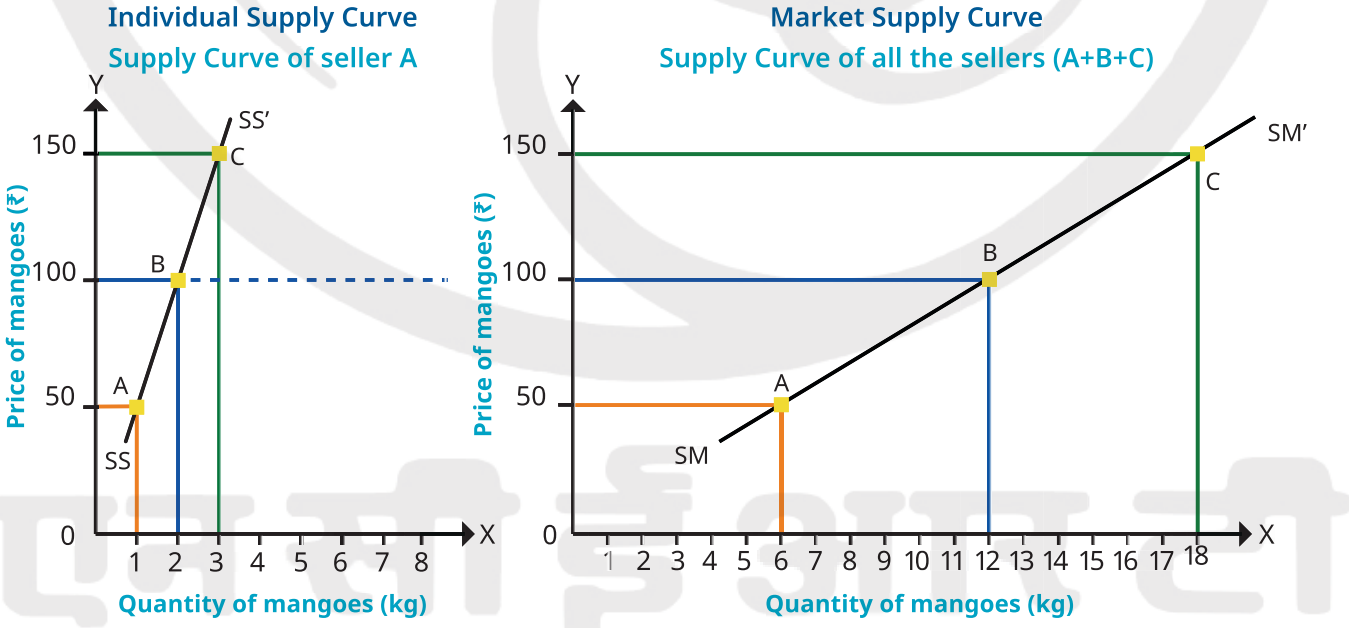


Fig. 9.5. Individual supply curve (left) and market supply curve (right)

Fig. 9.6. Prices affecting supply decisions

Other Determinants of Supply

Price of related goods

Suppose a farmer faces two choices. If wheat prices are low but chickpea prices are high, he will grow more chickpeas in the next season. Therefore, the supply of one good depends on the profitability of other alternatives for the supplier.

Number of sellers in the market

If there are more sellers in a market due to higher competition and increased production, the market supply of the product would exceed the demand. As a result, prices would fall. Likewise, if there are fewer sellers in the market, supply would be lower than demand, and prices would rise.

Technology

Improvement in technology reduces the cost of production, allowing producers to produce more and supply more and vice versa. For example, with improved techniques such as drip irrigation and weather sensors, crop production may rise, leading to a higher supply. Similarly, the adoption of cold storage facilities can enable the transportation of mangoes to distant markets, thereby increasing market supply.

Future expectations

If producers or suppliers expect a boom in the demand for goods in the near future, they will produce more, and supply will rise. Similarly, if the producer is expecting lower demand, they will reduce production, leading to a fall in supply. For instance, if mango wholesalers expect prices to rise during the peak summer season, they might hold back supply now to sell later at higher prices.

LET'S EXPLORE

What happens to the supply of a product in case of a change in the cost of inputs for production, discovery or depletion of resources, weather, disaster, etc.? Discuss in class using examples of diverse goods and services.

Market Equilibrium

Market equilibrium: Market equilibrium is the point where supply of goods and services equals demand, meaning there is no excess supply (surplus) or excess demand (shortage) in the market, and prices tend to remain stable unless external factors change.

Every market involves negotiation between what buyers are willing to pay and what sellers are willing to accept. Thus, prices are determined by the interaction between demand and supply.

The table below shows the quantities of mangoes demanded and supplied at the selected prices. At a lower price, there is excess demand, whereas at a higher price, there is excess supply.

Price (₹)	Quantity demanded (Qd) of Mangoes (in kg)	Quantity supplied (Qs) of Mangoes (in kg)	Quantity Supplied and Quantity Demanded	Outcome
40	38	6	Qs<Qd	Excess Demand
100	12	12	Qs= Qd	Market Equilibrium
150	8	43	Qs > Qd	Excess Supply
Equilibrium Price = ₹ 100		Equilibrium Quantity = 12 kg		

Table 9.3.

At a price of ₹100, the quantity demanded equals the quantity supplied. This point is known as the **market equilibrium**. At this point, there is no pressure for prices to change, and the market is 'cleared', which means that there is neither a shortage (excess demand) nor a surplus (excess supply).

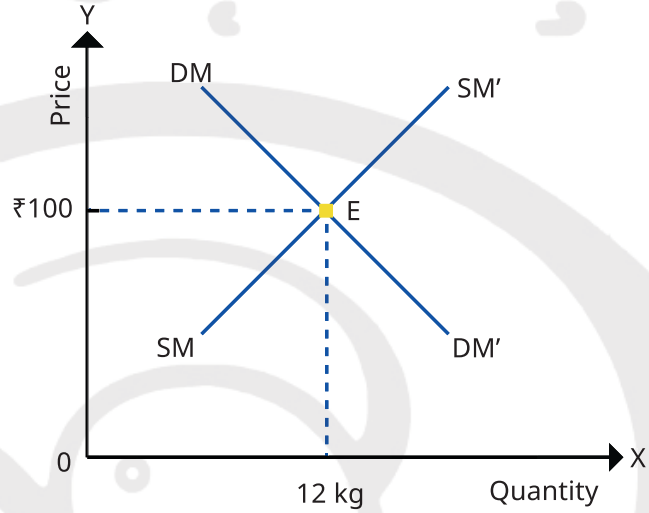


Fig. 9.7

On the graph in fig. 9.7, equilibrium is where the demand curve DMDM' intersects the supply curve SMSM', that is, at point E, where the equilibrium price = ₹100 and the equilibrium quantity = 12 kg.

LET'S ANALYSE

Using data from table 9.3, plot the demand and supply curve at the three prices, i.e., ₹40, ₹100 and ₹150. Identify and mark excess demand and supply on the graph. Think about how equilibrium could be reached in these scenarios.

Does Market Equilibrium Exist in the Real World?

In theory, equilibrium is an intersection point between demand and supply. But in the real world, markets are dynamic with constantly changing conditions. For example, changes in technology, wages, interest rates, as well as wars, political events, pandemics, weather, and natural disasters alter demand and supply. Therefore, 'equilibrium' in the real world is never stable and moves all the time, i.e., the market is always in a process of adjusting to a new equilibrium, never fully settling at the previous one. For example, during the COVID-19 pandemic in 2020, the demand for face masks surged rapidly. As a result, the supply could not catch up immediately, and the price of masks rose significantly. Over time, suppliers adjusted to the increased demand and prices fell. Once the pandemic was over, demand reduced further, and the prices reduced to pre-pandemic levels.

Tariffs by hotels: An example of dynamic markets

Hotels do not charge the same price (also called tariff) for rooms all the time. Their prices change according to demand, season, and special situations. This shows how markets are dynamic, meaning prices keep changing based on varying conditions.

Suppose a hotel in Goa has 100 rooms. The room tariff changes as follows:

- Off-season weekday (Monday in July): ₹1,500 per night
- Weekend during tourist season (Saturday in December): ₹8,000 per night
- New Year's Eve (very high demand): ₹25,000 per night

If a group tour cancels its booking, the hotel may reduce tariff by 40% overnight to quickly fill empty rooms. Hotels may also change tariff several times in a day to earn maximum **revenue**. These tariff changes depend on other factors such as:

- How fast rooms are getting booked
- Tariff charged by nearby hotels
- Festivals, conferences, or events in the area
- Weather forecasts
- Number of days left before arrival
- Past booking trends

This example shows how prices in a market change with changes in demand and supply in real world markets.

Revenue: Total amount of money a business earns from the sale of goods or services, or other operating activities, before any expenses are deducted.

THINK ABOUT IT

Can you think of another real-life example (other than hotels) where prices change frequently? Explain why the prices keep changing.

Our choices today affect future resources. For example, high demand for fast fashion, overfishing and overuse of groundwater can harm future supply. So, should we focus only on short-term gains, or also think about long-term sustainability? How could this affect the market equilibrium?

Price ceiling: An imposed price control that sets the maximum amount a seller can charge for a product or service.

Price floor: An imposed limit on how low a price can be charged for a product, good, or service. For a price floor to be effective, it must be set above the market equilibrium price.

Monopoly: A market structure with a single seller or producer controlling the entire supply of a unique product or service, facing no close substitutes, allowing them significant power to set prices and output.

Role of Government in the Economy

Today, India is the fourth-largest economy in the world. It is a market based, regulated economy in which prices depend on demand and supply. However, markets do not always work fairly. Markets allocate goods and services based on willingness and ability to pay. Suppose essential goods like medicines become very expensive, will they be accessible to all? In such cases, fairness and equity in allocation are required, particularly to ensure the welfare of vulnerable and low-income groups.

So, the government plays an important role in the economy in the following key aspects.

Regulation of Unfair Practices

The government regulates unfair practices to protect consumers, workers, and producers from exploitation and injustice. For example, the government sets maximum prices (**price ceiling**) for essential goods like medicines to prevent overcharging. Similarly, the government sets a minimum wage to ensure workers earn enough for their hard work. This lower limit is known as the **price floor**.

Sometimes a single or a few sellers dominate the market; they can charge higher prices and supply less than a competitive market would. This form of **monopoly** would be detrimental to consumer welfare as it may charge higher prices, provide poorer quality of goods and services, restrict supply, and so on. The government regulates such practices by keeping the prices and quantity supplied in check.

THINK ABOUT IT

Have you ever seen or heard of the government fixing prices or wages (for example, bus fares, medicines, or minimum wages)? Share an example and why you think it was done.

Many regulators such as the Reserve Bank of India (RBI) for banking, the Central Consumer Protection Authority for violation of consumer rights and unfair trade practices, the Telecom Regulatory Authority of India (TRAI) for the telecommunications sector, the Securities and Exchange Board of India (SEBI) for the securities market, and so on, ensure transparency in the market. Do you remember some regulators from the Grade 7 Social Science textbook chapter 'Understanding Markets'?

During COVID-19, the demand for sanitisers surged, leading to stockouts and sharp price increases. Some shopkeepers began **hoarding** and **black-marketing**. The government intervened by declaring sanitisers essential commodities under the Essential Commodities Act, 1955, capping the maximum retail price at ₹100 for 200 ml bottles. Meanwhile, many companies started production, and sanitisers soon became widely available at fair prices. How do such price controls affect suppliers and consumers? While in this case the price control was for an emergency, do you think such controls should be in practice forever?

Hoarding: Accumulation of goods, commodities, or money by individuals or firms beyond what is immediately necessary, typically driven by fear of future shortages, anticipated price increases, or speculative motives.

Black marketing: The illegal trade of goods and services that are banned or regulated.

Provision of Public Goods

Public goods are goods and services that are provided by the government for the benefit of all citizens. For example, roads, bridges, public parks, street lighting are provided for public use; national defence protects the country from external threats; sanitation, and drainage systems improve living conditions, and so on. These goods are usually not provided by private companies because they do not generate direct profit.

Suppose your neighbourhood needs a park. Building it is expensive, but many families would benefit from it. If each family contributed ₹5,000, the park could be built. However, many families may think, "If others pay, the park will be built anyway, and I can use it without paying." Because of this thinking, not enough money is collected, and the park is never built even though everyone needs it. This explains why goods that benefit everyone often require government provision or funding to ensure social welfare, economic development, and equal access to essential services.

LET'S EXPLORE

From your surroundings, list two goods or services that are provided by the government (for example: roads, street lights, parks, police). Choose one of the goods you listed and answer:

→ Who benefits from it?

→ Why would it be difficult for a private company to provide this service on its own?

→ Imagine the government stops providing this good or service, what problems might people in your area face?

Limitations of Government Intervention

Although government regulations are required when markets are inefficient, they must be implemented carefully, as excessive market intervention can have adverse effects.

a) Price distortions and reduced producer incentives

When the government fixes prices below market levels, producers may lose motivation to supply goods or services. For instance, if the government sets a maximum price for wheat at ₹20 per kg while the market forces set it at ₹30/kg, farmers receive less than what they would in a free market. This may lead to reduced production and shortages.

b) Compliance burdens

Government intervention often requires extensive regulations, licenses, permits, and compliance procedures. This can hurt businesses, especially small enterprises and hamper **ease of doing business**. For instance, a small restaurant may need multiple permissions related to food safety, fire safety, pollution control, and local clearances. The time and cost involved can discourage small entrepreneurs from starting or expanding businesses.

Ease of doing business: How simple it is to start, run, and close a business in a country, measured by regulations, bureaucratic efficiency, and legal frameworks.

c) Discourages innovation and entrepreneurship

Heavy regulation and price controls reduce incentives to invest in new ideas or better technology. For example, in the case of price distortions, farmers won't invest in better seeds, irrigation, or technology if they cannot earn adequate returns. This reduces long-term productivity and output.

LET'S RECALL

In the chapter 'Democracy', you have read that a democratic government is accountable to the people and is expected to act in their interest.

→ According to you, how should a democratic government decide when and how much it should intervene in markets to protect people's welfare?

→ Whose voices should a democratic government consider while making such decisions—consumers, producers, workers, or others? Why?

Understanding how these economic systems work and the general principles of economics help to see the logic behind the choices people make, whether it is the price they pay, the jobs they do, or the policies governments implement. It provides the tools to think critically, use resources wisely, and make informed decisions in a world where every choice affects individuals, society, and the economy.

Markets are not machines with fixed equilibria but dynamic systems that constantly adapt, evolve, and respond to changing conditions. The next time you notice a price change—whether it is books, vegetables, or sports equipment—pause and ask, what is really happening here? Is supply changing? Is demand shifting? Is the market moving toward equilibrium or being pushed away from it? Is government intervention helping or hurting? While understanding these forces, you are not merely learning key principles in economics; instead, you are decoding how market dynamics work in real life.

Before we move on...

- Demand is the quantity consumers are willing and able to buy at different prices. The Law of Demand shows an inverse relationship, that is, as price falls, quantity demanded rises. Demand is influenced by income, prices of substitutes and complements, tastes, seasonality, future expectations, and population.
- Supply is the quantity sellers are willing and able to offer at different prices. The Law of Supply shows a direct relationship—as price rises, quantity supplied increases. Supply depends on prices, related goods' prices, the number of sellers, technology, input costs, and other factors such as weather.
- Market equilibrium occurs when the quantity demanded equals quantity supplied. Fundamental markets constantly adjust toward a new equilibrium as conditions change—weather, trends, technology, income and so on create dynamic pricing conditions.
- Government intervenes when markets fail and produce unfair outcomes (unaffordable essentials), under-provide public goods, and enable monopolies. However, excessive government regulations may also have adverse effects.

Questions and activities

1. An increase in income always leads to a rise in demand for goods. Defend or refute, giving reasons for the same.
2. If petrol prices double, what happens to—
   a) Demand for diesel cars
   b) Demand for electric cars
   c) Demand for car accessories
   d) Demand for public transport
3. A farmer traditionally irrigates fields manually (labour-intensive). He installs drip irrigation (a technology upgrade) that reduces water use by 40% and increases yield by 30%. How does this affect—
   a) His cost of production
   b) His willingness to supply at different prices
   c) The overall market supply if many farmers adopt this technology
4. During online festival sales, the prices of many products are very low. Use the concept of demand and supply to explain why the sellers sell at such a low price. What happens to the equilibrium when the price is lowered? Does this benefit only consumers or sellers as well? Explain.
5. Suppose the government sets a maximum sale price for an essential vaccine below the market-driven price. What is likely to happen? Choose from the options below and elucidate your point.
   a) Surplus
   b) Shortage
   c) No effect
   d) Fall in demand
6. The government levies higher taxes on products such as tobacco and alcohol to promote healthier choices among citizens. Can you find out other goods where price controls have been set in place? What are the reasons for the same?
7. Can excessive government regulation hurt markets? Explain with suitable examples.

8. In the table below, different prices of guava are given.

   a) Think and write how much guava you will buy at each price.

   b) Ask the same question to three of your friends and fill in the table.

   c) Also make a graph for each one of you and one final graph for the total quantity.

Price	You	Friend 1	Friend 2	Friend 3	Total
₹100/kg					
₹80/kg					
₹50/kg					
₹20/kg					

9. Visit the nearby vegetable market and try to find answers to the following questions.

   a) Who decides the prices of different vegetables in the vegetable market?

   b) Sometimes the prices of a few vegetables is too high, and sometimes too low. Why is this?

   c) The price of tomatoes is high in the morning and eventually gets lower by the evening. Have you ever noticed this? Comment.

10. Categorise the following combination of goods into substitute goods and complementary goods.

   i. Movie ticket in the cinema hall and popcorn

   ii. Eraser and pencil

   iii. Laptop and computer

   iv. Air Conditioner and cooler

   v. Notebook and pen

   vi. Apple and banana

   vii. Mobile and earphones

11. Figure 9.8 shows the demand curve DD' and Supply curve SS'. Based on the figure, answer the following questions:

(i) What does point E represent in this market?

(ii) What is the equilibrium price and equilibrium quantity at point E?

(iii) Point A lies on DD'. Point B lies on SS'. What do the points A and B indicate about demand and supply? What does the gap between A and B (both on the upper dashed price line) represent?

(iv) Point F lies on DD'. Point C lies on SS'. What do the points F and C indicate about demand and supply? What does the gap between C and F (both on the lower dashed price line) represent?

(v) If the price stays at the lower dashed line, what could happen next in a free market?

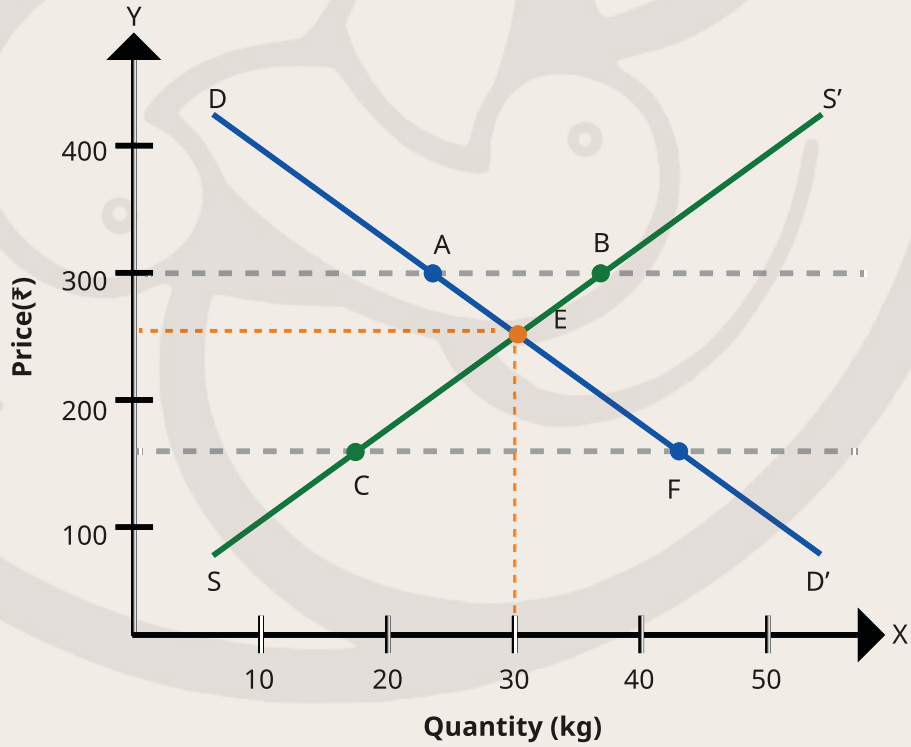


Fig. 9.8.

12. Draw a market equilibrium graph using the following demand schedule.

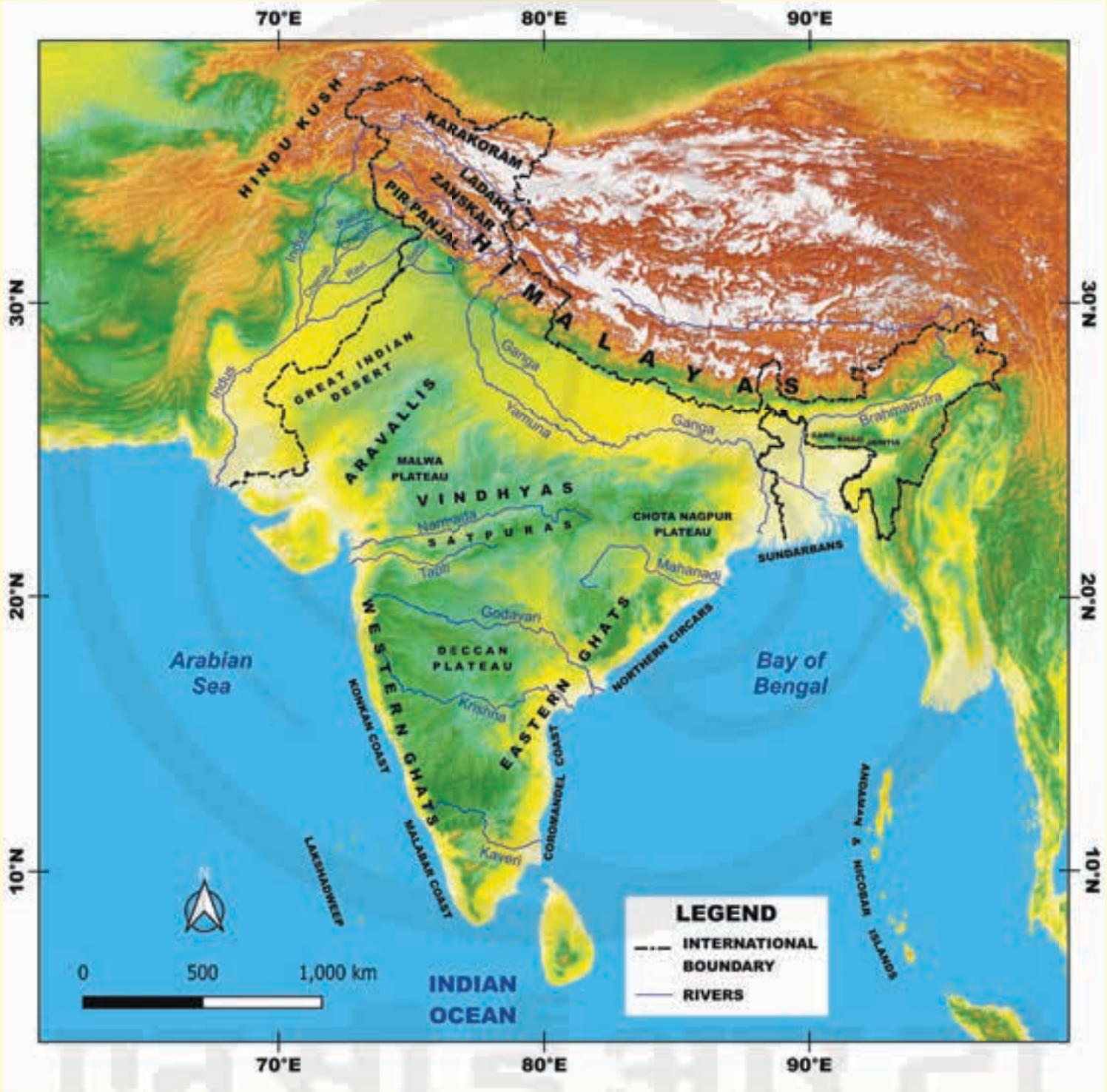
Price (₹)	10	20	30	40	50
Q.D. (kg)	5	10	15	20	25
Q.S. (kg)	25	20	15	10	5

a) Plot the demand and supply curve using the above data.

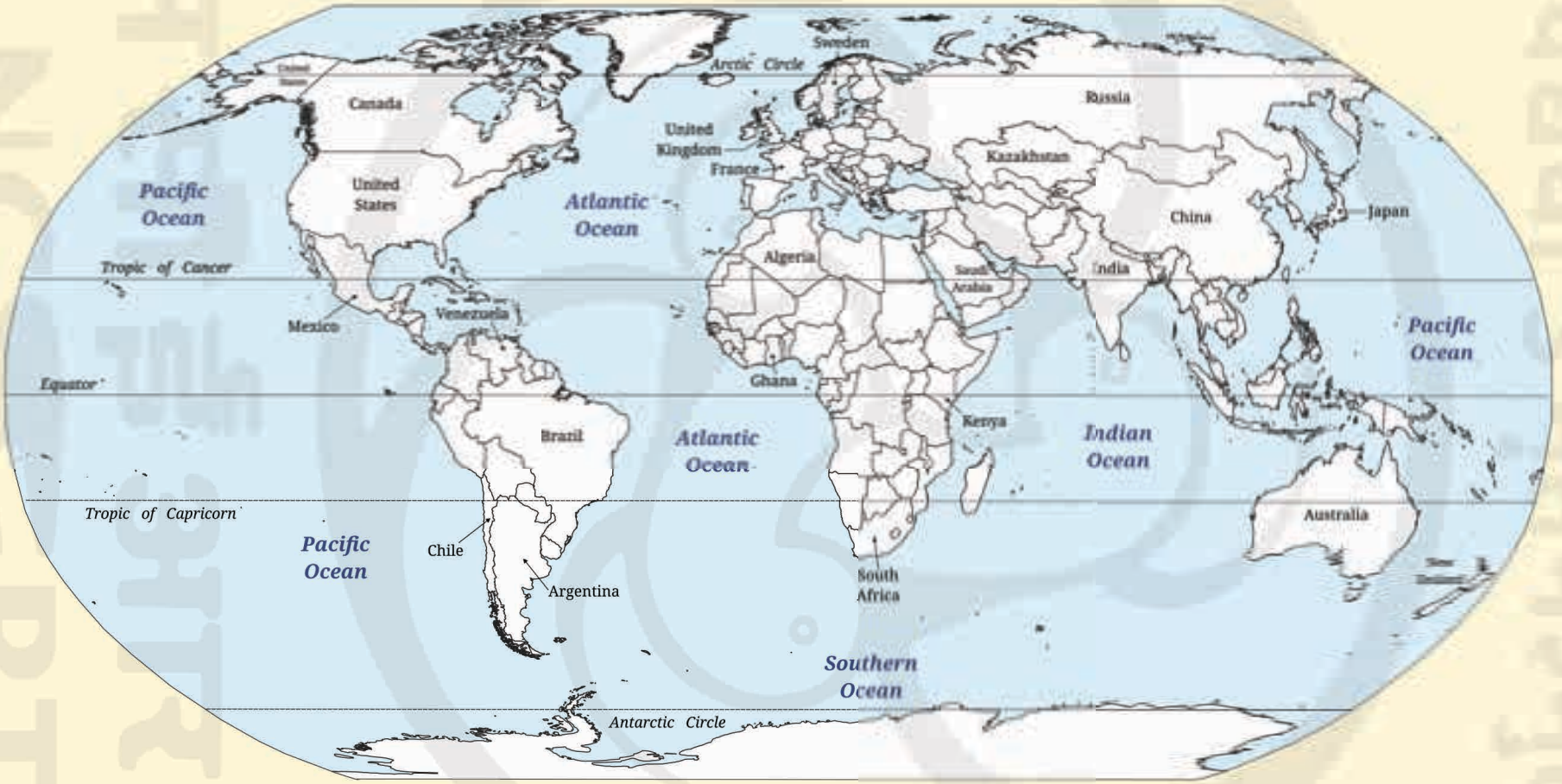
b) Identify the equilibrium price and quantity.

c) Observe the above data and analyse what happens if the price is set at ₹20 or ₹40.

Political_Map_of_India



Physical Map of India



Political map of the world, with a few names of countries.

Physical map of the world.

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