SCERT Kerala · Class 10 · Social Science 2

Social Science 2 Part 1

PADIKAM
SOCIAL SCIENCE II
PART I
Complete Study Notes | Standard X | English Medium
SCERT Kerala 2025 syllabus coverage
Original explanations, revision tools, exam focus and practice

PADIKAM | CLASS 10 SOCIAL SCIENCE II - PART I
Contents
Geography and economics combine here: atmosphere, world climates, consumer protection and the role of money.
Chapter 1 | Weather and Climate
Chapter 2 | Climatic Regions and Climate Change
Chapter 3 | From the Rainy Forests to the Land of Permafrost
Chapter 4 | Consumer: Rights and Protection
Chapter 5 | Money and Economy
How to use this book
• Read the chapter mission first to understand the learning target.
• Study the core notes and pause at every table, formula or process map.
• Use the exam focus list for last-minute revision.
• Answer the practice questions without looking back, then revise weak areas.
Official textbook links
SCERT Kerala Class 10 PART I
SCERT Kerala Standard 10 textbook catalogue

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CHAPTER 1
Weather and Climate
Chapter mission: understand atmospheric elements, heat balance, pressure, winds, moisture and weather observation.
Weather and climate
• Weather is the short-term atmospheric condition at a place; climate is the long-period pattern over a larger area.
• Temperature, pressure, wind, humidity and precipitation are major elements. Latitude, altitude, distance from sea, relief and ocean currents influence them.
• Insolation is incoming solar energy. Earth absorbs and re-radiates energy; the overall balance is the heat budget.
Heating the atmosphere
• Conduction transfers heat by contact near the surface; convection moves heat vertically; advection moves it horizontally; radiation transfers energy as waves.
• Temperature generally decreases with altitude in the lower atmosphere. An inversion reverses this pattern for a layer.
• Isotherms join places of equal temperature and help reveal geographic controls.
Pressure and winds
• Warm rising air tends to create low pressure; cool sinking air tends to create high pressure.
• Pressure-gradient force starts wind, Coriolis effect deflects it, and surface friction modifies it.
• Planetary wind belts, seasonal monsoon winds and local winds operate at different scales.
Humidity and precipitation

• Humidity measures water vapour in air. Relative humidity compares actual moisture with the maximum possible at that temperature.
• Cooling to the dew point causes condensation and may form cloud, fog or dew.
• Convectional, orographic and cyclonic uplift can produce rain; relief creates windward rainfall and leeward rain shadow.
Weather information
• Thermometers, barometers, rain gauges, wind vanes, anemometers, satellites and radar provide observations.
• A forecast is a probability-based scientific estimate and should be updated as new data arrive.
• Warnings reduce risk only when communicated clearly and followed by prepared communities.
Exam focus
• Distinguish weather from climate with time scale.
• Explain wind from pressure difference plus Earth's rotation.
• Use a labelled process for each rainfall type.

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Practice
1. Why does temperature usually fall with altitude?
2. Explain orographic rainfall and rain shadow.
3. How do satellites improve weather forecasting?

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CHAPTER 2
Climatic Regions and Climate Change
Chapter mission: classify world climates and explain the causes, impacts and responses to present climate change.
Climatic classification
• Climatic regions group areas with similar temperature and precipitation patterns.
• Latitude controls solar energy; global pressure belts, winds, continentality, relief and ocean currents modify regional climate.
• Climate graphs show monthly temperature and rainfall and allow quick comparison of seasonality.
Major patterns
Region Typical pattern
equatorial hot and wet through the year
tropical monsoon/savanna warm with strong wet-dry seasonality
desert very low and irregular rainfall
Mediterranean dry summer and mild wet winter
temperate marine/continental moderate maritime or large continental range
polar very cold with low precipitation
Climate change
• The natural greenhouse effect keeps Earth habitable. Added greenhouse gases strengthen heat retention and disturb climate systems.
• Carbon dioxide, methane and nitrous oxide rise mainly through fossil fuels, land-use change, agriculture and industry.
• Evidence includes long-term temperature rise, glacier and ice loss, sea-level rise and changing extremes.
Impacts and response
• Risks affect water, agriculture, coasts, health, ecosystems and livelihoods, with unequal burdens on vulnerable groups.
• Mitigation reduces causes through clean energy, efficiency, public transport, forest protection and low-carbon production.
• Adaptation reduces harm through resilient infrastructure, water management, early warning, climate-smart agriculture and ecosystem restoration.
Exam focus
• Read climate graphs using both temperature and rainfall.
• Distinguish greenhouse effect, global warming and climate change.
• Give separate mitigation and adaptation examples.

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Practice

1. Compare equatorial and desert climates.
2. How do human activities strengthen the greenhouse effect?
3. Suggest two mitigation and two adaptation measures for Kerala.

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CHAPTER 3

From the Rainy Forests to the Land of

Permafrost

Chapter mission: compare natural regions through climate, vegetation, wildlife and human adaptation.

Natural regions

• Anatural region emerges from the interaction of climate, soil, relief, water, plants and animals.
• Biomes change gradually across space; maps show broad patterns rather than sharp walls.
• People adapt housing, food, clothing, work and transport to local opportunities and hazards.

Warm regions

• Equatorial forests have layered evergreen vegetation, high biodiversity and rapid nutrient cycling.
• Savannas combine grasses with scattered trees and seasonal rainfall; fire and grazing influence the landscape.
• Hot deserts have sparse xerophytic vegetation and organisms adapted to conserve water and avoid heat.

Temperate regions

• Mediterranean vegetation tolerates summer drought; fruit, vines and olives are characteristic crops in many areas.
• Temperate grasslands support grain cultivation and livestock on fertile soils but face erosion when poorly managed.
• Temperate deciduous and coniferous forests reflect differences in temperature, moisture and growing season.

Cold regions

• Taiga is dominated by conifers adapted to long cold winters.
• Tundra has permafrost, a short growing season and low vegetation such as mosses, lichens and small shrubs.
• Polar life depends on insulation, seasonal migration and marine food webs; warming threatens ice-dependent systems.

Responsible use

• Deforestation, overgrazing, mining and climate change can push natural regions beyond recovery thresholds.
• Conservation must combine protected areas, sustainable livelihoods and the knowledge and rights of local communities.

Exam focus

• Compare regions under common headings: location, climate, vegetation, fauna and life.
• Explain adaptations as responses to environmental conditions.
• Connect conservation with both ecology and livelihoods.

Practice

1. How are desert plants adapted to water scarcity?

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2. Compare taiga and tundra.
3. Why are equatorial forests biologically rich but often nutrient-poor in soil?

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CHAPTER 4

Consumer: Rights and Protection

Chapter mission: act as an informed consumer and understand rights, responsibilities and redressal systems.

Consumer and market

• Aconsumer buys goods or uses services for consideration. Unequal information and bargaining power can expose consumers to unfair practices.

• Common problems include adulteration, defective goods, misleading advertisements, overpricing, unsafe products and poor service.
• Digital markets add concerns about hidden terms, fake reviews, data use and difficult cancellation.
Rights and responsibilities
Consumer right Meaning
safety protection from hazardous goods and services
information accurate quality, quantity, price and risk details
choice access to alternatives without unfair pressure
to be heard consumer interests receive consideration
redressal remedy for loss or unfair practice
education knowledge needed for informed decisions
Smart buying
• Check labels, price, quantity, dates, warranty, energy or quality marks and seller identity.
• Keep bills, screenshots, order messages and complaint records. Use products according to instructions.
• Do not rely only on influencer claims or a single review; compare total cost, return policy and after-sales support.
Seeking redressal
• First contact the seller or service provider with a clear request and evidence.
• If unresolved, use the appropriate grievance system or consumer commission according to jurisdiction and claim.
• Possible remedies include repair, replacement, refund, compensation, discontinuation of unfair practice and corrective advertisement.
Exam focus
• Pair every right with a practical example.
• State the evidence a consumer should preserve.
• Write complaint steps in logical order.

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Practice
1. How does the right to information protect consumers?
2. List the evidence needed for an online-shopping complaint.
3. Explain consumer responsibilities without blaming victims of fraud.

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CHAPTER 5
Money and Economy
Chapter mission: explain the functions of money, banking, credit, inflation and responsible financial participation.
Why money matters
• Barter requires a double coincidence of wants and makes value comparison, saving and future payments difficult.
• Money acts as medium of exchange, measure of value, store of value and standard for deferred payment.
• Money works because people and institutions accept it within a trusted legal and financial system.
Banking and deposits
• Banks accept deposits, provide payment services and lend part of available funds.
• Savings, current and fixed deposits serve different needs. Interest is paid on some deposits and charged on loans.
• Digital payments move account balances electronically; security requires strong authentication and fraud awareness.
Credit
• Credit can support education, production and emergencies, but repayment includes interest and possibly fees or collateral risk.
• Formal credit is regulated and documented; informal credit may be accessible but can carry high cost and weak protection.
• Responsible borrowing compares effective cost, repayment capacity, purpose and consequences of default.

Inflation and public institutions

• Inflation is a sustained rise in the general price level, reducing the purchasing power of money.

• A central bank issues currency, supports financial stability and uses monetary tools to influence credit and inflation.

• Financial inclusion expands safe savings, payments, insurance and affordable credit to underserved groups.

Exam focus

• Use all four functions when explaining money.

• Distinguish interest rate from total borrowing cost.

• Explain inflation as a general sustained rise, not one price increase.

Practice

1. How does money solve barter difficulties?
2. What should a borrower check before accepting a loan?
3. How does inflation affect fixed-income households?

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Final Revision Checklist

• I can explain atmospheric processes and read climate information.

• I can compare climatic and natural regions.

• I understand causes and responses to climate change.

• I know consumer rights and complaint steps.

• I can explain money, banking, credit and inflation.

Padikam Learning Content

Prepared as an independent learning companion using the SCERT textbook only as the syllabus and notation reference.