7.MONEY AND BANKING

Trading without Money

Mohan has come with *ragi* to Shyamala to buy mangoes. Shyamala made two equal heaps of the *ragi*. She gave Mohan a few mangoes that together weighed as much as one of *ragi* heap. Mohan took the mangoes home and Shyamala kept both the heaps of *ragi*. The rate at which the mangoes was exchanged is – 'half as much as the grain'. There can be other rates too, such as 'equal to the grain'

In some villages of Srikakulam district children exchange toys made from bamboo in exchange for rice. This system of exchanging goods directly against each other without the use of money is called the Barter system.

The blacksmiths used to mend the blades of ploughs or wheels of a bullock cart not for cash but for a fixed amount of grain after every harvest. There is a traditional rate of how much should be given for each plough or cart owned by the farmer. People know that the tradition will be continued and the blacksmith does whatever is expected of him without asking for cash payment.

- Are you aware of any exchanges that are done without money?
- You may have bought things in exchange of old clothes, plastic, newspapers, hair, paddy etc. Discuss the transaction.

Let us take another example. Ramaiah has some rice, but he wants potatoes. So he goes to Veeraiah who grows potatoes. Veeraiah wants rice, and he is willing to exchange potatoes for rice. So the two exchange their goods, and both are satisfied. This is called the Barter system. In a Barter system, goods are directly exchanged for each other without the use of money. In another example, Gopal has a goat and he wants to exchange it for rice. He goes to Seenu. Seenu wants a goat, but he has jowar and not rice. Gopal meets Ramu who produces rice. But Ramu does not want to exchange his rice for the goat, he wants to buy jowar.

Complete the following table:

	Gopal	*Seenu*	*Ramu*
Wishes to buy			

Wishes to sell

- What can we conclude from the above table?
- Explain in your own words why exchange is not possible between Gopal and Seenu.
- Will the use of money help? Fill in the blanks.

If Gopal exchanges for money, his goat with ....., then Gopal uses this ..... to buy rice from ..... Now ..... can use this money to buy ..... from Seenu.

- Ask your parents how washermen, barbers, *neeti kaavalikaru* were paid for their work in villages and towns.

Exchange with Money

If we use money, there will be no problem in exchanging commodities. It is then not necessary that a person who has something in excess finds another person who needs it and has something what he wants. Money acts as an intermediary or in between step, something that is held for sometime because it can be used further. We saw these situations in the above examples. It is able to do that because it is acceptable to all. Those who wish to sell will accept this as payment and similarly those who wish to buy will only have to offer money in exchange. Any commodity or service can be exchanged for money, and money can be exchanged for any commodity or service. Money, by itself may have no use. It is wanted because of the role it plays in exchange. One can also borrow and pay back in the form of money.

- How can money be used in the transactions between Gopal, Seenu, and Ramu? Explain with the help of a flow chart.
- If the role of money as described above were stated as a medium of exchange, would you agree? Explain.
- For how much rice should Gopal exchange his goat?
- In a Barter System how do you pay a person who cuts your hair? Discuss.

Barter System has another problem.

Gopal: How many bags of rice will you give for this goat?

Seetaiah: Two bags.

Gopal: I was offered 4 bags for it in near by village.

Seetaiah: And I can get a goat for just one bag in other village.

Gopal: ……

Seetaiah: ……..

Gopal wants 6 bags of rice for his goat. At what rate should they be exchanged? In other words, what is the **value** of the goat, in terms of rice? Under the Barter system, to make exchange possible it was necessary to determine the value of a commodity in terms of another. If one has to do this for many commodities, this is quite cumbersome and does not facilitate exchange or trading. It is not convenient. Other ways of exchange evolved that we will read later. However in some situations this is still used and found useful, especially in rural areas.

- In the above example, complete the conversation so that they are able to trade.
- If money was not used by you or any of the traders in your *santalu* or weekly market what would happen? Describe in a paragraph.
- Do you think money can act as a measure of value of goods and services? Explain.
- Hari cultivates vegetables like tomatoes, okra, green leaves etc. He wants to buy fertiliser after three months. He can't keep these vegetables with him to pay for the fertiliser after three months. If he does not use money what arrangement will he get into with the person supplying fertilisers? Do you find such arrangements in villages around you? Many a time farmers may not benefit from such arrangements. Discuss.

Gopal has a goat, and wants to buy a matchbox. Is it a fair exchange for him? He cannot give a part of the goat for a matchbox, because the goat is not divisible. But with money you can buy small items also. Money is divisible – there are Rupees

and Paise. You can see that commodities like vegetables should be exchanged immediately, because they are perishable. This problem is removed when commodities are sold for money. Money is durable, and it can be kept for future use. Also holding of commodities like sheep, goats, or bags of rice requires a lot of space and you need carts and trucks to carry your goods for exchange to the market. However money does not require much space to keep, it can be carried about anywhere in a bag or purse. It is portable.

Evolution of forms of Money

Fig 7.1: Coins of different periods, kingdoms

People all over the world practised Barter system and also encountered the problems with this system. When trading became more widespread, more goods were bought and sold. They were also transported over long distances. In such circumstances use of some form of money evolved in all societies. For example, in very early ages people used grains and cattle as money. But these were difficult to transport and stock. Durability was also a problem since they could be attacked by disease etc.

Over time, people preferred scarce and attractive metals as medium of exchange. Copper, bronze, silver and gold are durable, can be divided into parts and be carried around. Since they were scarce they became acceptable by all. People could buy and sell with the assurance that the money they had in hand would be valuable and sought by others. They have to worry that their money might lose value as could happen with grains or cattle. However, some problems remained and new problems came up. For every exchange the metal had to be weighed and later on traders were not sure about the quality of the metal. What one might get in exchange may not be pure gold or silver. After some time there was a serious problem of trust in the quality of metal that was used as money for exchange.

This provided an opportunity for various rulers of the kingdoms to come up with a system that was suitable for them and also solved some of the above problems. This led to minting coins of standard size, weight, and purity from the Royal Mint. It was not necessary to weigh each time, there was greater assurance of purity and it was easy to carry. In the Roman period “Besant”- a gold coin was the standard currency and in the Mauryan period “Pana” - a silver coin was the standard currency. Coins became the acceptable form of money by traders and people.

- Why were metals preferred for use as money?
- Do you think minting of coins was a good idea?
- In what ways would minting of coins benefit the rulers? Can you think of three different reasons?

Paper Money and Emergence of Banks

People, who had to buy and sell in large quantities, had to carry large amounts of gold or silver coins for their transactions. So they started looking for safe places to keep them. They went to goldsmiths, where their money would be protected. The goldsmiths charged fees for keeping their valuables safe and making them available whenever they wanted. This practice became popular and the trust in some of the goldsmiths or shroffs grew.

These goldsmiths would also give loans and had branches in many cities leading to a new system of paper money or *hundis*. For example Somu is a machinery tools merchant of Vijayawada, he has to go to Hyderabad to buy machinery from Chandu. It is dangerous to carry gold coins for payment all the way to Hyderabad. So he keeps his ten gold coins, with a goldsmith, and takes a receipt issued in his name. The receipt would say, “I promise to pay 10 gold coins”. Now Somu buys the machines from Chandu. He gives the goldsmith’s receipt to Chandu and tells him to collect the 10 gold coins from the goldsmith as payment. Chandu knows that he can go anytime to collect the 10 gold coins from the goldsmith who has an office at Hyderabad also. He doesn’t go to collect the money but instead he goes to Sayeed who sells iron and steel, and gives him Somu’s receipt for 10 gold coins in exchange for steel. He tells Sayeed that he can collect the gold from that same goldsmith. Since the goldsmith is known to all and is trusted for always paying up the receipts that are brought to him, Sayeed accepts the receipt easily. Somu’s original receipt has now circulated in the economy, and is being transferred from one person to another and all accept this as a means of payment. Because of the trust created, such receipts began to work as a new form of money.

The early bankers in India such as Jagatseths of Bengal, Shahs of Patna, Arunji Nathji of Surat, Chettiars of Madras enjoyed such wealth and reputation that their receipts – paper money called *hundis* - were accepted throughout the country and outside too.

Plastic or Polymer Bank notes

Paper money also has its defects. It will tear and get dirty. So there is an idea of using plastic material for notes. Plastic or polymer currency is easy to handle, more durable and forgery can be detected easily. It is water-proof and eco friendly (recycling is easy). From metal to paper and now
probably paper to plastic. Do you think the material used for money affects the value of it?

Fig. 7.2: In India Reserve Bank of India is responsible for printing and circulating the money.

Let us look at a different story for the emergence of banks. In 1606, Amsterdam was a major trading centre in Europe. Here there were 846 types of silver and gold coins recognised by the government that could be accepted for exchange. However, traders were always suspicious of each other – everyone would doubt the purity and weight of these coins. The merchants of Amsterdam got together and solved this problem in a unique manner. They created a bank owned by the city. A merchant would take his coins and the bank would weigh and find out the amount of pure metal and give him receipt for this and open an account. Whenever required he could ask for the pure metal. He could also transfer some of this to another person, if required. This was convenient for traders.

The bank operated honestly and it was trusted by all traders. They would ask for receipts of the bank or a transfer to their account, instead of the coins. The traders knew that the bank would on demand give them pure metal. Deposits at the bank became a new form of money. The business of the bank grew and it worked successfully for two centuries. The operation of bank deposits as money had evolved.

- Why do the receipts of the goldsmith work as money?
- Can you think of situations when this trust of the goldsmith could break?
- What was the problem faced by the traders in Amsterdam and how did they find a way out?
- After two centuries this bank collapsed. Can you guess what could have been the reasons for this? Discuss.
- Read the promise on paper notes used today. Who is making the promise and to whom? Why is this important? Discuss.

Modern Banks

- Have you ever been inside a bank? What are the names of some banks you know?
- If you step inside a Bank, you will find some employees sitting at different counters with their computers/ ledgers and dealing with the customers. You can also observe people depositing money at some counters and withdrawing money at other counters. There is one cabin where the manager sits. What do these bank employees do?

Commercial Banks

Banking is a business activity where money deposits are collected from the public, and these deposits can be transferred from one person to another. Banks also give loans to businessmen, industrialists, farmers and individuals. Such banks are called Commercial Banks. Let us examine both these aspects.

Deposits

Deposits refer to the money that people keep in the banks. There are different types of deposits. Let us look at some of these below.

Savings Deposits or Savings Accounts:

Geeta has saved Rs. 5000 from her salary and wants to keep it safely. She goes to a branch of State Bank of Hyderabad which is close to her home and opens a Savings Account. She does get some interest on it and her money is safe. Most importantly she can withdraw it any time she wants. The bank promises to pay on demand.

Find out

- How would she withdraw the money from an ATM?
- What would she do if she went to her bank branch?

Why do we save money in a bank?

- Money kept at home does not earn interest. But, money kept in a bank account does. If you keep money in the bank it will grow.
- In the villages, poor peoples incomes are irregular and unpredictable. You have to cope with a bad crop season, loss of employment, illness or death in the family. You also need money for marriages and festivals. Saving money in a bank account helps you smoothen your income.
- Money is safe in bank, please check, if the bank in which you intend to keep your hard earned money is licensed, please do not share bank account details with anybody. Protecting your bank acount is as important as opening and using it.

Fig 7.3:

Basic Savings Bank Deposit Account (BSBDA)

It can have zero or very low minimum balance. There are no restrictions like age, income, amount etc., criteria for opening for individuals. Maximum of four withdrawals in a month is allowed including ATM withdrawals. The services available include deposit and cash withdrawals credit of money through electronic payment channels or checks.

Small account: If basic savings bank deposit account is opened on the basis of simplified KYC norms the account would additionally treated as small account and would be subject to conditions stipulated for such accounts. Total credits should not exceed 1 lakh rupees in a year. Maximum balance should not exceed 50,000 rupees at any time. The total of debits by cash withdrawals and transfers will not exceed 10,000 rupees in a month. Small accounts are valied for a period of 12 months initially which may be extended by another 12 months if the person provides proof of having applied for an officially valied document.

Cheques

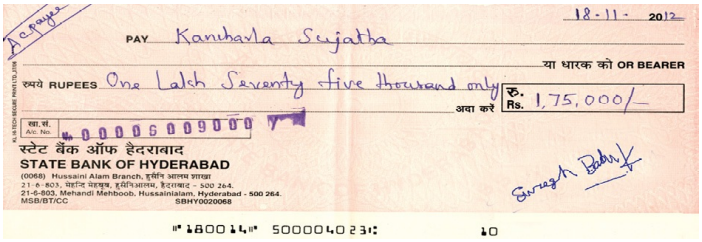


Fig 7.4: A model cheque

Nowadays cheques are widely used for making payments and receiving money. When you want to give money to someone, you write a cheque on that person's name. When you want to send money to someone who lives in a different place, you can send a cheque to the person by post. You can also use your cheque to transfer money electronically into the other person's account through a bank. For business purposes, where money is frequently received and paid, cheques are very important as a medium for transactions.

You can see an example (page 83) as how a cheque is written. Suresh is an account holder in the Andhra Bank. He has to pay Rs. 1,75,000/- to Kancharla Sujatha. So he gives her a crossed cheque in the name of Kancharla Sujatha.

- Draw the picture of a bank cheque in your notebook and pay Rs.1,50,000 to your friend sitting next to you.
- Why is a crossed cheque safe? Discuss.
- If Suresh Babu wants to deposit 1,75,000 electronically into Kancharla Sujatha's account through his bank, how can this be done? What more information would he require? Visit a bank and find out.
- Discuss and make a list of payments that people make electronically without using a cheque.

Current Account Deposits:

Many businessmen, shopkeepers, companies and traders have large daily earnings and payments. They have to withdraw money many times to buy goods, pay labourers, etc. Similarly, large business offices get money from customers who purchase their goods and services every day and they daily pay those who have supplied them various things or done some work for them. For many requirements of these kind, banks have a separate type of account called Current Account. There are no restrictions on the number of times you can deposit or withdraw the money from a current account. Transactions can be made by way of cheque, so there is no risk of handling huge amounts of cash. However the bank does not pay any interest on money deposited in a current account but will collect service charges.

- What is the difference between a savings account and a current account?

How does the system work?

Cheque deposited into a bank account enables one to transfer the money into another. This facility operated by the banking system makes deposits work like money. Bank deposits are money.

In many towns and cities representatives of all banks meet on each day to settle what each bank has to pay to the other and receive from the other. Cheques that have been verified are handed over to each other. One of the banks works as the Clearing Bank where all the banks have an account. The payments and receipts between banks are done by this Clearing Bank.

In the present system all banks and most of their branches are linked by computers. All deposit holder accounts and their signatures can be accessed by the branches anywhere. Hence representatives don't have to meet nor do banks have to send cheques to the outstation branches. Transaction between one bank and another is done through interlinked computers. This makes the whole system work faster and in an easier manner.

Internet banking

Now a days computers and internets are used everywhere. In most banks human and manual teller counters are being replaced by the Automated Teller Machine [ATM]. Banking activity is being done with computers with internet and other electronic means of communication which is called as electronic banking or internet banking. Most of the banks are providing debit card, credit card, net banking, phone banking for their customers to use the banking services online.

Internet banking helps transferring funds from one customer's bank account to another customer's bank account, buying and selling goods, investments for repaying loans and payments of electricity, phone and other utility bills.

With internet banking a customer is saved from hassles of travelling, paper work and other kind of stuff. In just a few clicks, one can access their account and transfer funds, pay bills, etc. People with hectic schedule prefer Internet Banking.

Fig 7.5: A person withdrawing money from ATM

Mr. Raghu has an account in SBI, Secunderabad branch and has registered for online banking facility. To pay his phone bill Mr. Raghu logs in to the S.B.I. website by entering his user name and password. He selects the option for online payment of phone bill, enters the phone number and the amount to be paid. The amount will be debited from his SBI account and invoice generated. Paying bills through online saves time and energy and also ensures that the bills are paid in time.

Bank Accounts for Minors

- A savings / fixed / recurring bank deposit account can be opened by a minor of any age through his/her natural or legally appointed guardian.
- Minors above the age of 10 years are allowed to open and operate savings bank accounts independently, subject to bank's risk management systems that are in place
- Additional banking facilities like internet banking, ATM / debit card, cheque book facility etc., are allowed. But minor accounts are not allowed to be overdrawn and should always remain in credit.

- Match the statement in column A with the word(s) / terms in column B:

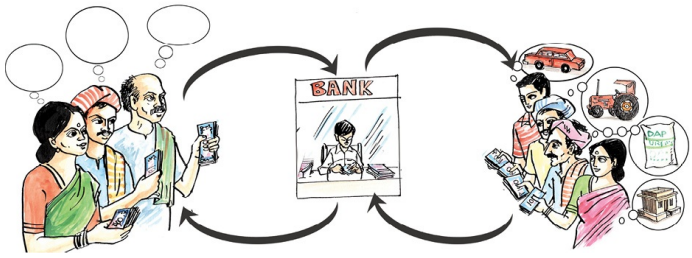
Column A		Column B
(a) The banking facility that helps us to make payments out of our bank account without actually carrying money with us.	( )	(i) ATM
(b) The banking facility enabling us to deposit or withdraw cash 24 hours a day.	( )	(ii) Phone Banking
(c) The facility that helps us to perform banking transactions over the Internet.	( )	(iii) Credit Card
(d) We can get information about the balance in our bank account over the mobile phone using this facility.	( )	(iv) Debit Card
(e) The facility that enables us to make payment for	( )	(v) Net Banking

Fixed Deposit

Manaswini's grandfather wanted to give her a gift. So he gave her a Fixed Deposit certificate for Rs. 10,000. "It will grow enough till five years to pay for your college Education," grandfather said. How can it grow?*pe*

ople make deposits *people take loans*

business,harvest,salary



people get interest *people pay interest*

Fig 7.7: Functioning of a Bank

A Fixed Deposit or a Term Deposit cannot be withdrawn from the bank for a fixed period of time. It could be one year, two,

five or seven years. The rate of interest is higher on a fixed deposit.

- When should one opt fixed deposits for savings?
- How much money will Manaswini get from her Fixed Deposit till five years, if the rate of interest is 8%?
- Suppose she needs the money urgently for some medical treatment. Can she withdraw it from the Fixed Deposit at the bank? What will happen?

Loans

A bank is a business enterprise. It has to pay interest to its depositors, pay salary to its employees, has to buy and maintain equipment, pay rent and bear all the cost of running a bank and also make profit. So how does it earn revenue?

Deposits are the way through which money saved by people comes into the bank. As long as depositors trust that the bank pays them their money on demand people don't rush to withdraw their deposit as cash. Many people withdraw money at the beginning of the month. If the depositors are farmers, then there will be a greater demand for cash during certain seasons (rainy season). Hence over time banks realised that they require only a small proportion of the deposits so that they can always keep to the promise of payment on demand. The trust is kept if people can withdraw their money as cash or use bank deposits for payments.

On the other side banks give loans to people. People will pay back these loans with interest. Banks also give loans to government and earn some interest. The interest earned on loans given by the bank is the source of revenue.

- Will the same rate of interest be charged for all types of borrowers from a bank?
- What will happen if some borrowers do not repay the bank loan?

Types of Loans

Banks give loans and advances to different sections of the public like traders, industrialists, students (educational loans), farmers, artisans etc. Let us examine some of them.

Rahim is a small farmer who grows paddy on his 4 acres of land. He needed money for fertilisers and seeds at the time of sowing. So he took a loan of Rs 10,000. He mortgaged (gave as security) his harvest. After selling the harvest, Rahim will return the loan to the bank along with interest, within one year.

Leela wants to buy a flat. She takes housing loan from a bank for Rs. 8 lakhs, by mortgaging her flat. A certain amount is deducted from her salary every month and paid to the bank. She will recover the ownership papers of her flat, after fully paying off her bank loan.

Shanta is a member of the Self-Help Group (SHG). She has taken a loan for her house repair from the bank. She does not have to keep any assets as security. The group will ensure that loans are paid back by its members.

Fig 7.8: SHG members' meeting

Different people can obtain loans for different requirements under some rules and conditions of the bank. Interest rate, security and documents required and the mode of repayment are all part of the conditions for the loan.

- Why do banks ask for security while lending?
- Which is a better source of loans – Banks or Money Lenders? Why?
- How is an SHG loan different from an individual loan?

Visit a commercial bank which is near to your locality and fill up the following table:

S.N.	Type of loan	Loan amount	Duration	Documents required	Interest rate	Mode of payment	Security,if any
1.	Vehicle						
2.							
3.							

Key words

1. Barter 2. Forms of money 3. Deposits 4. Savings
5. Loan 6. Interest 7. Cheque

Improve your learning

1. Fill in the following table with some examples of transactions: AS_1

Transactions involving rupee notes and coins	Transactions not involving rupee notes and coins

2. Can there be any difficulties or disadvantages in keeping money in a bank? Think and write. AS_1

3. In what ways have cheques made exchange of money more convenient? AS_1

4. Only a part of the total deposits is kept as cash in the bank-safe. Why is this so and how does this benefit the bank? AS_1

5. If a very large number of account-holders do not wish to keep their money in the bank, how will it affect the bank's working? AS_1

6. If many loans are written off (that is, borrowers are not required to pay back the money) how will this affect the working of the bank? AS_1

7. People have to pay a higher interest on loan than the interest they receive on a fixed deposit for the same time-period. Why do you think this is so? AS_1

8. Suppose this year the rains are poor and the crop yield is only half as much as was originally expected. Some people say that if this happens the farmers should be asked to pay back only half the amount they have taken as loans. However other people say that full amount should be repaid, keeping in view the next year's crop. In your opinion what should the bank do and why? AS_4

9. Read the paragraphs under the header 'Types of Loans' and answer the following:

What sort of loans are more in your area? AS_2

10. Do you feel that the loans taken from SHGs are helpful to the members? How? AS_6

Activity:

Suppose you need Rs. 2,000. You fill a cheque, and give it to your sister and send her to get the money in cash.

Project:

1. Visit a bank or invite a bank employee to the school and find out:
   a) How to open a saving account in your name?
   b) How are cheques cleared by the banks?
   c) How do banks make NEF Transfers? (National Electronic Funds Transfer)
   d) What security precautions are necessary for an ATM to work? What does the computer check?
   e) Apart from cheques, people can also exchange money through Bank Drafts/ on line transaction etc. Find out.
   f) For the person receiving the money what is the advantage of online transaction compared to a cheque?

g) The following interest rates on savings deposit

   Interest rate on fixed deposit
   Interest rate for loans given to farmers
   Interest rate for loans given to housing
   Interest rate for loans given to education

2. Please visit www.rbi.org.in and read comics on financial inclusion/ financial literacy themes.

Changes in Technology

Technology is something we see and use everyday. Whenever you talk on your mobile phone, or switch on the TV, or work on your computer, you are using the latest technology. Technology is the practical application of knowledge in our everyday lives that leads to a new product or an improvement in the way something works, or how something is done. Even when you sharpen your pencil, use instruments for cutting and chopping, cook in different vessels, you are using technology. From simple instruments and equipment to all the complicated machinery that we use is part of technology. It could be at home or a factory or for communication and transport.

Think of all the complicated machinery and technology used nowadays – in space explorations, in factories, in transport, and so on. These have developed over time. You have also learnt about the industrial revolution, and how there was a tremendous change in the method of production during the 18th, 19th centuries.

- Who were the contributors to this industrial revolution?

Fig 8.1: A woman weaver

The steam engine changed many production processes in factories. Later on with a new source of energy such as electricity, factories that we see today emerged. When a new machine or method of production is created for the first time, it is called an invention. However, practical application of these ideas takes a long time and depends on many factors. These could be improvements to make the technology effective, reducing cost of new techniques, acceptance of a new way or product. Technical developments or technical improvements can be due to completely new types of machinery (X ray machines, power looms), or changes in types of raw materials used (plastic instead of rubber), or reorganisation of production processes.

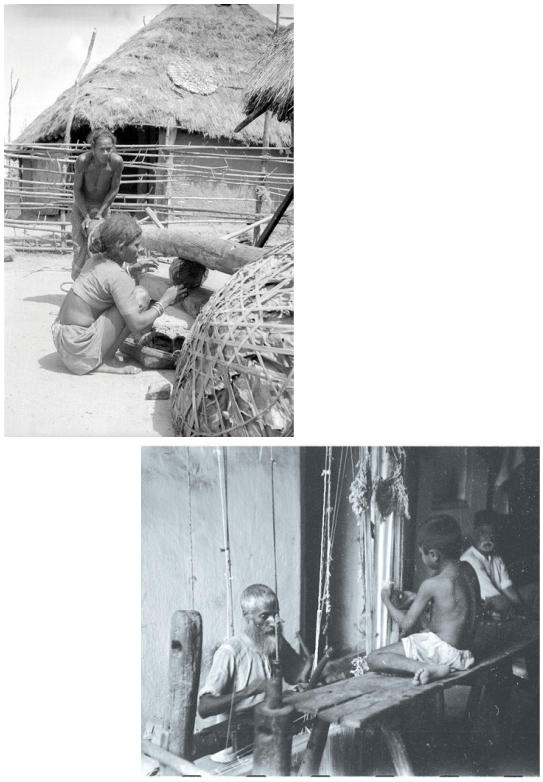


Fig 8.2: (left) Photo of 1940's of Koya man and woman squeezing palm fruit, (right) carpet weaver in Hyderabad

For example, Henry Ford of USA, started the Assembly Line method of production to produce more cars quickly. This led to mass production in factories, and huge increase in output. The internal combustion engine, new materials and chemical products, communication technologies such as radio, computers etc are some other examples where a vast range of practical application has been made. Technical change can lead to a new product or a new way of producing the same good or a service. More jobs are created for those who have to supply raw materials (such as iron, coal, etc.) for the production of these new machines. Also, using these machines leads to more jobs; for example cars and buses are produced with iron and steel, and there is demand for

drivers, mechanics, petrol stations etc.

- How have computers changed life around you?
- Do you think technology has changed entertainment? How?
- Find out the story of the first steam engine. How did this lead to establishment of Railways in India?
- Did you see solar energy being used in your neighbourhood, town or city? Make a short list. Why is this source of energy not used even more widely? Discuss.

Technology is not always welcomed. People are afraid that they would lose their jobs to the machines. For example, in the 19th century, in England, many textile artisans protested violently against the new power looms, which would replace them. With combine harvesters being used in agriculture, people have similar reactions. In India, when computers were first introduced, people thought that they would lose their jobs.

It is true that some jobs will be lost but other new jobs will be created. However, technology impacts different sections of society in different ways. Is there a way out of this situation? Are there overall benefits? To analyse such situations we will study three different situations in India.

Technological changes in Agriculture

Agriculture around the time of independence was traditional. Farmers produced paddy, wheat, vegetables, cotton etc. They mostly depended on rainfall, and in some areas got water from tanks or rivers. Most farmers were able to cultivate only once in a year. Simple implements such as wooden plough, sickle, spades, and crowbars were used to cultivate fields. Farmers used to save seeds on their own for the next season. Bullocks were used to transport goods, ploughing and for other agricultural operations. Agricultural goods were produced mostly for self (consumption – for use within the family) and some for the market.

After Independence the government began building dams and providing irrigation facilities by encouraging the use of tube wells. Pump sets, run on electricity or diesel, were used to draw water. There were many far reaching technological changes in agriculture: water was made available to farms for irrigation continuously in some parts of the country. New seeds from research institutions giving higher yield were made available. Fertilisers and pesticides were sold by cooperative societies or through shops in markets. Farmers were encouraged to buy and use new agricultural machinery such as tractors for various operations.

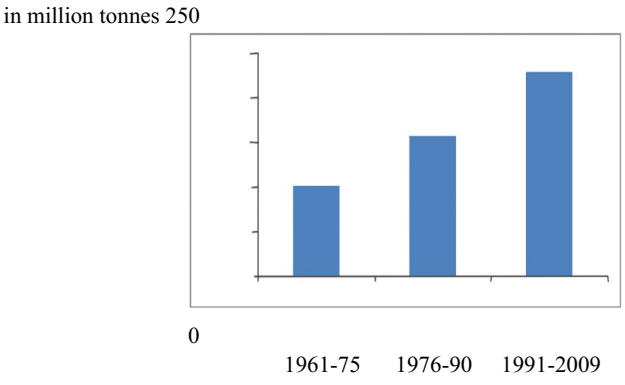
Impact of Technology

Increase in production: Use of modern technology in agriculture helped farmers to produce more foodgrains and other goods. Farmers are able to get more yields in the same area they cultivated. Look at the following table. There was a two-fold increase in the amount of foodgrains such as paddy, wheat, cereals and pulses produced in India during the last four decades. During 1990s and in the first decade of 21st century, farmers are able to produce more than 200 million tonnes of foodgrains every year.

Table 1: Yearly Production of Foodgrains in India

Period	Production (in mil. tonnes per year)
1961-75	101
1976-90	157
1991-2009	229

Graph 1: Yearly Production of Food grains in India



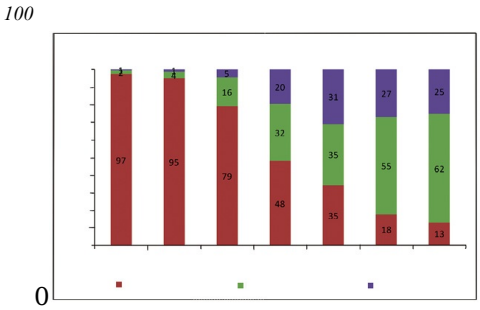
Changes in production process:

The use of agricultural machinery also changed the production process quite considerably. In some areas, farmers began to cultivate their farms twice in a year which increased employment opportunities for labourers.

Use of agricultural machinery made the agricultural workers to prefer to working on daily basis rather than on annual basis. They are free to work for any farmer who pays better wages. But there is no assured employment. Peak agricultural operations such as transplantation and harvest of paddy is the only time when labourers can demand better wages. However, nowadays large farmers often prefer to get this work done using machines. On one hand labourers gained some work but also lost their traditional jobs.

Decline in the use of animal power

Tractors began to be used for transportation and many agricultural operations. Minor tools used in ploughing, sowing, weeding and harvesting also underwent considerable change. Over the years, the use of animals has declined considerably, as can be seen from the graph 2 given below



Graph 2: Use of animals in agricultural operations in India (in %)

Small farmers are not able to use modern agricultural techniques because these can only be used in large sized farms. Hence, they look for employment in urban areas or in others' farms during the rest of the year.

Loss of employment because of Combined Harvester

Combined Harvester (CH) is one of the important machines used for paddy harvest. It harvests the crop, threshes and cleans the grain from chaff.

Fig 8.3: Combined Harvester

As it combines the activities of harvesting, threshing and winnowing it is called Combined Harvester.

Use of CH helps in timely harvest of paddy. It takes less time, reduces the crop loss and helps farmers to tackle the peak time labour shortage. It also saves from vagaries of weather in coastal regions of Andhra Pradesh and Odisha. Further, the farmers are able to sow the second crop without much delay. Their dependency on labourers is also reduced.

A study on the use of CH in 2003 reported the following: Farmers are able to save about one quintal of grain per acre, which would have been otherwise lost during manual harvesting. CH operators charge about Rs.1100-1400 per day and large farmers are able to earn by hiring out their CH.

CH harvests paddy of about one acre in one hour. If this was done manually, 5 agricultural labourers may be required to work for 4 days. If 10 labourers were employed, they would complete the task in 2 days. Suppose there are 250 agricultural labourers in a village which has 1000 acres of paddy. If Combined Harvester is used, it will complete the work in 55 days working 18 hours every day. But each one of the 250 workers will lose 80 days of employment.

Extensive farm mechanisation is leading to displacement of labourers. Agricultural labourers and farmers working on others' fields lose out to machines used in the farm. If people are not getting sufficient employment opportunities in villages, where will they go? There is very little employment opportunity outside.

- What are the advantages of using CH in agricultural production? Make a list from the above text.
- In many villages agricultural labourers, women labourers in particular were found to be upset seeing the operation of CH. Why?
- List the jobs lost by agricultural labourers when Combined Harvesters are used.
- Do you think it is appropriate to use CHs in India where a large section of people working in agriculture as labourers, are poor, and there is so much of rural unemployment?

Use of machinery also changed the nature of work done by agricultural labourers – they are required to drive tractors for various agricultural operations, irrigating fields using pump sets, use of sprayers, applying fertilisers, work with harvesters and threshers. In many small towns workshops began to be established to repair agriculture machinery which led to creation of new jobs. However, this is not enough to provide employment on a large scale.

- It is argued that new jobs can be created in rural areas through infrastructure works. Link roads, tanks, bunds etc. can be created through labour intensive schemes. If you live in rural area find out if any such activities are being done and discuss if these will suffice the livelihoods of the people there.

Fig 8.4: Ford Assembly line

Technology and Industry

Recall the lesson in Class VII on Jagathaiah's family engaged in weaving of Ikkat sarees. Textile industry consists of various activities of making cloth. Today, about 10 crore people are working in different segments of textile industry. The textile industry is the second largest employer after agriculture in India.

Impact of Textile Mills

The British introduced powerloom production in India. When the mills started making cloth, the demand for the handloom weavers' cloth dropped. This happened over many years. Later on the mills started facing competition from powerloom clusters that began operating from small workshops.

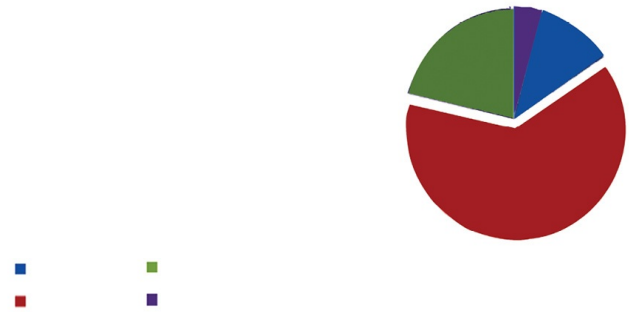
A major difference between a **Powerloom Unit** and a **Mill** producing cloth is the scale of operation. A **Mill** or Factory may have hundreds of looms in a large space, it is a factory complex employing tens and hundreds of workers in different sections.

A **Powerloom Unit** will have only a small number of workers and is established at home with a few looms or in a relatively smaller space such as in workshop sheds.

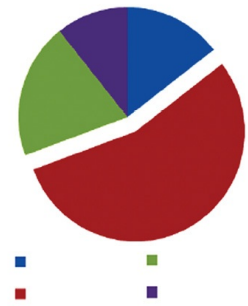
Most mills produce very high quality cloth, whereas powerlooms mostly produce low or average quality cloth. In powerlooms, a wide variety of fabrics are produced such as shirting, suitings, saree, dhoti, sheetings, towels, *chaddhar*, furnishing, shawls, blankets etc. made out of cotton, blended, synthetic, silk and wool yarn.

Impact of Powerlooms

In 1940s, there were only 40,000 powerlooms. Now nearly 5 lakh powerloom units run with 23 lakh looms in India. Most units are small having 1-8 looms. Tamil Nadu, Maharashtra, Gujarat have a large number of powerloom units. Nearly 50,000 powerlooms are being operated in Andhra Pradesh.



Production of clothes in 2010-11



Production of cloth in 1988-89

Look at the pie diagrams. Since 1980s, powerlooms account for largest share of cloth production in India and their share is increasing over the years.

Powerlooms moved from large mills to small sheds and houses and has led to many changes in textile industry. Nearly 60 lakh persons are getting employment in powerlooms.

Decline of Handlooms

One important and visible change is the decline of handlooms. In 1988 for instance, there were 33 lakh handlooms operating in different states and in 2009-2010, this has come down to 24 lakh units. Look at the following table showing how the number of handlooms in some states has declined during the last two decades. However, handlooms have found a new market in traditional fabric and designs. With increasing government support and subsidies they are able to survive, despite the competition from powerlooms.

Change in no.of handloom units

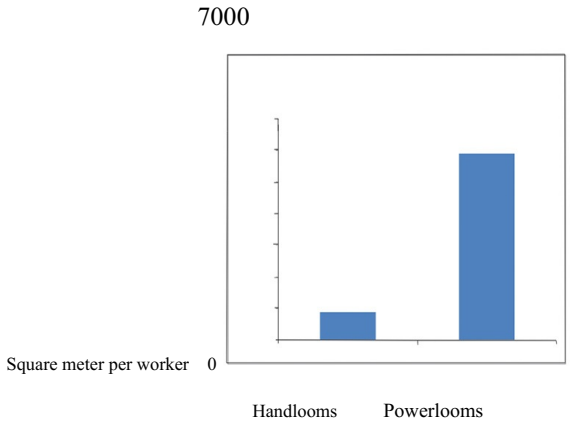
State	1988	2009
A.P.	5,29,000	1,24,700
Gujarat	24,000	3,900
Karnataka	1,03,000	40,500
Maharashtra	80,000	4,500
Madhya Pradesh	43,000	3,600
Punjab	22,000	300
Tamil Nadu	5,56,000	1,55,000

Look at the graph 3 on the right. The amount of cloth produced per worker in powerlooms is about six times higher than in handlooms because of the use of mechanised technology. This also tells us why powerlooms mushroomed during the last five decades in India.

Fig 8.5: Weaving Pochampalli saree

But there are certain problems to the workers in powerlooms. Compared to mills, powerlooms pay a very low salary. While mills pay workers monthly salary, workers in powerlooms are paid on piece rate basis or on produced cloth basis.

Graph 3: Labour productivity in handlooms and powerlooms



There is no obligation for powerloom units to provide healthcare, pension or other social security provisions. If there is any power-cut, powerloom workers are not given salaries. In mills, workers form trade unions, and employers have to negotiate with trade unions for fixing wage rates. Trade unions do not exist in most powerloom clusters. One study of a powerloom cluster reported in 2008: 'Food insecurity, malnutrition, anaemia and other health-related problems such as tuberculosis, asthma and gynaecological illnesses among women; houselessness, and a high dropout rate among children are some of the common challenges confronting powerloom workers.'

- The production of cloth is classified into 4 categories as mill, handlooms, _____ and _____.

- ---------- state had the largest number of handlooms in 1988. ---------- state had the largest number in 2009. Which state had the lowest number of handlooms in 2009?
- The _____pays the worker a salary while the _____ pays the workers on _____ rate.

Technological changes in Service Sector

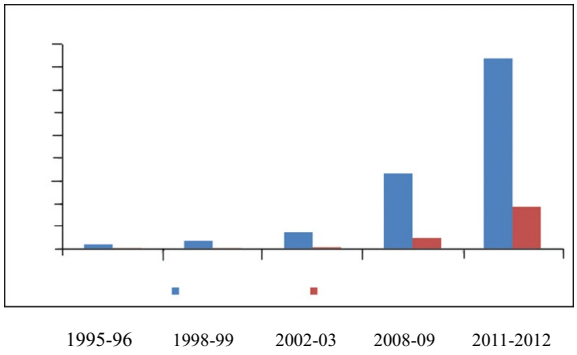
Technological changes also affect Service activities. Services include activities that support agriculture and industries. For instance, if cotton is cultivated, it needs to be transported to nearby towns for sale. Or if cloth is to be produced in a powerloom, yarn needs to be transported from spinning mills. All the trading activities are also services. Services also include essential activities that may not directly help in the production of goods. For example, we require teachers, doctors, lawyers and those who provide personal services such as washing clothes, cutting hair, making shoes. We also need people to do administrative and accounting works and to work in banks. Let us look at how communication service has facilitated people to do their business faster and better.

Fig 8.6: Women repairing community radio, (right) telephone assemble line in China

Change in technology makes communication faster and easily available to all

Daram Vinod is an elderly businessman in Kakinada. He has been running an automobile shop for more than thirty five years. He sells all kinds of spare parts. He had a landline phone in which he used to book a trunk call for talking to people outside his town. He had to wait on the queue till he gets connected. Sometimes the person whom he wanted to talk to could not be contacted. If there was any problem in the line or in the machine, he had to wait for weeks to get it repaired.

Times have changed now. Mobile phones have come into use. He contacts any person whom he wants to talk easily and immediately. He uses mobile for ordering the material, enquire about the prices, stock and delivery. Now he can get the details of his business easily. Besides personal calls from his family members, friends and relatives, many automobile workshop owners contact him on his mobile phone, to know whether he has the specific spares. In case he does not have any spares, he speaks to other shop owners and collects from them and supplies to workshops. This helps him to retain his regular customers. Many mechanics from far away villages and towns also contact him. In olden days when he ordered some materials from Hyderabad, he was not sure in how many days he could get the material. Now he contacts even the driver of the vehicle in which the ordered materials are being transported.



Graph 4: No. of Telephone/Mobile connections per 100 persons

Do you know that India's telecommunication network is the third largest in the world? Nowadays it is so easy to contact anybody through the phone – you can use your landline phone or your mobile phone. But this was not so till the 1990s. Only landlines were available and provided by the government. All over India, the mobile phones have grown from 50 lakh subscribers in 2001 to over 92.9 crores subscribers by May 2012. The mobile connections are 20 times more than landlines.

The changes in telephone technology brought down the cost of communication. From 1995, when mobile phone facilities were introduced for the first time, until 2002 persons receiving the call and persons making the call were required to pay. Only a few people showed interest in having a mobile phone. This policy was changed in 2003, and now only those who make calls are required to pay. In 1994 if somebody wished to talk on a landline phone for 3 minutes to a person 500 kilometres away, one had to spend Rs. 28. In 2003, this had come down to Rs. 2.40 to 4.80.

- Find out the current rates and discuss why the rates differ between companies and why they are decreasing?

New skills and new jobs

Fig 8.7: A trainer in solar engineering unit. In this chapter we see the photographs of many women engaged in technology. Many of them like the above one does not have an Engineering degree. Conduct a debate in classroom what biases/ stereotypes exist about women getting educated as engineers

Many private companies including the government-owned ones provide both landline and mobile connections. Private companies continue to expand their share in the telecommunication services. Many companies are being established in India to manufacture handsets. These companies are now exporting to more than 80 countries around the world. The telephone/ mobile technology also came up with the need for new skills. It created new jobs for young people to work in multinational companies, producing mobile handsets, telephone booths, mobile sales, repair and recharge/ top-up shops.

Key words

1. Technology 2. Invention 3. Irrigation Facilitiesrove
4. Fertilisers and Pesticides 5. Agricultural Operations
6. Service Activities

Improve your learning

1. Narahari created the following list of activities where technology is not used.
   Do you agree with him? If not prove him wrong. AS_1

a) While singing a song b) While cooking idli
c) While performing drama on the stage d) While making garland for sale

2. Describe how the situation of labour has changed in powerlooms and mills. Do you think this change is beneficial to the labourers or to the owner? Give reasons for your answer. AS_1
3. What are the advantages of using CHs? Who benefit most? Why do farmers use CH? AS_1
4. Changes in technology lead to changes in job opportunities. Do you agree with this statement? Why? AS_4
5. Prabavathi feels it is true that telephone technology has changed. She feels that new jobs are available to only educated persons. She also says that many people in India are not literate and hence modern technology is always biased to the educated.
   Do you agree with her? Give your reasons. AS_4
6. In this chapter, changes in technology in three sectors are discussed. In the following table identify a different example for

each of these sectors that is not discussed here: AS_3

Sl.No.	Sector	Older technology	Newer technology	Any impact on livelihood/amount of production/ increase or decrease in human effort
1	Agriculture			
2	Industry			
3	Service			

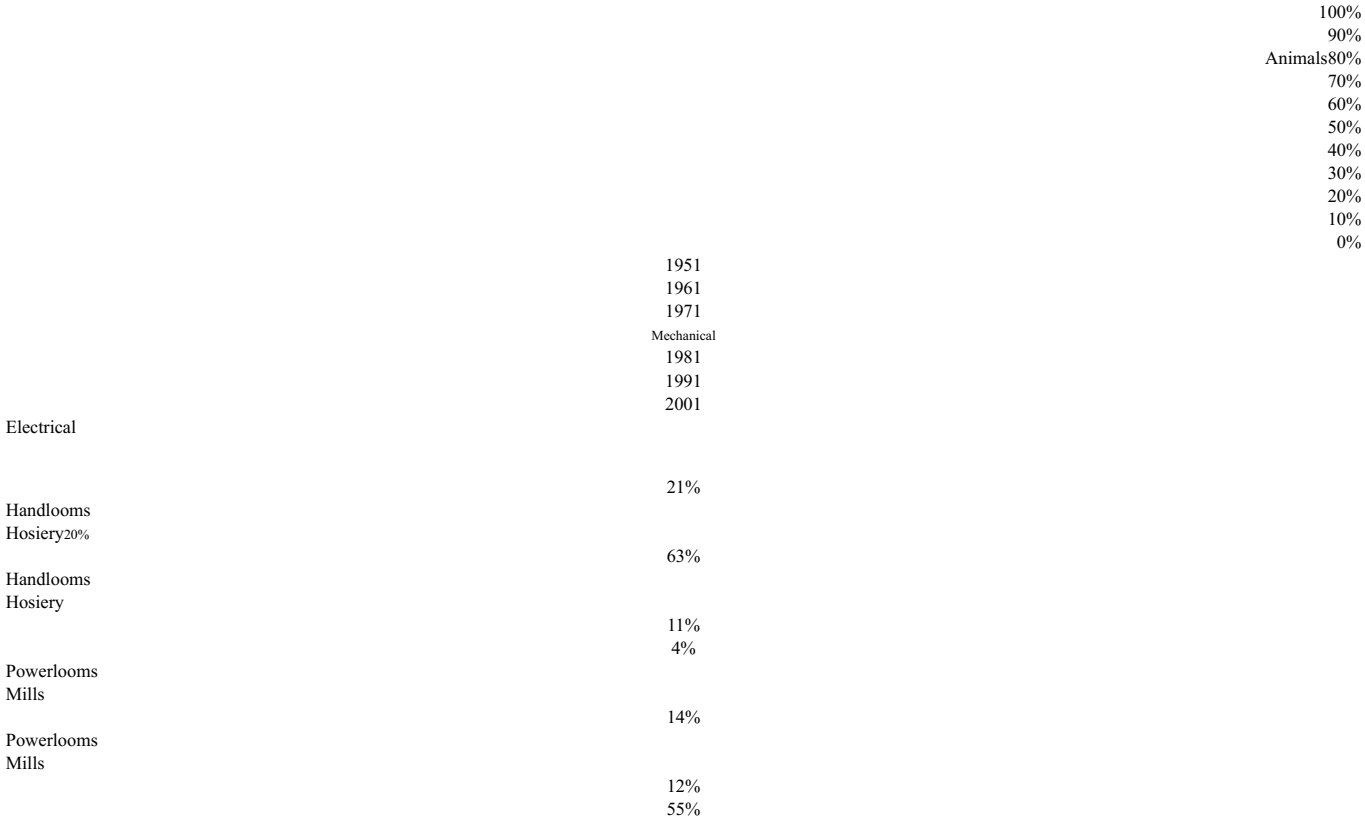
7. Read the paragraph under the heading 'New Skills and New Jobs' and answer the following: What are the newly created jobs for young people in your area? AS_2
8. Locate the following in the world map: AS_5

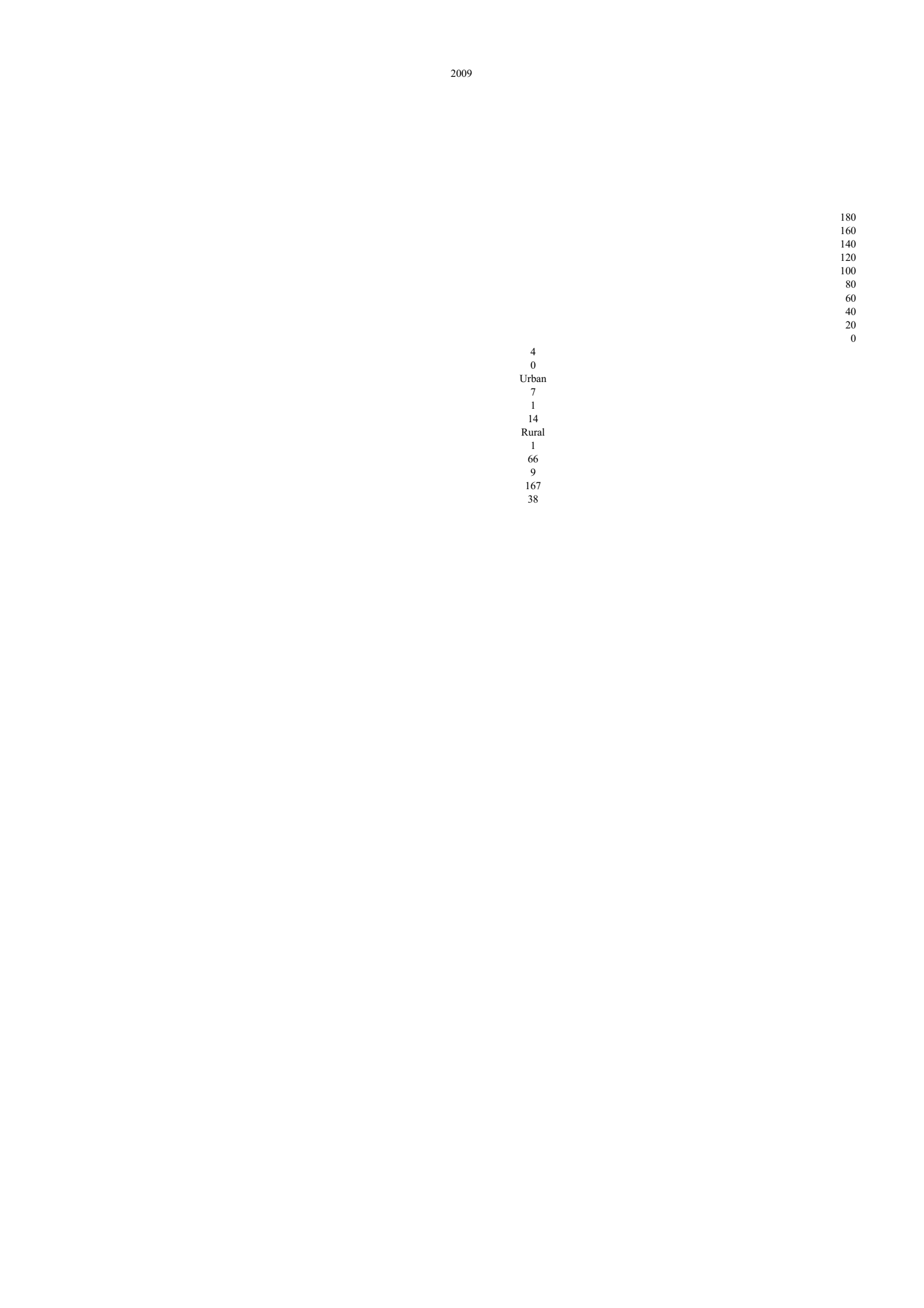
A) England B) USA C) India

9. The people live in forest and adjacent to forest can not afford to use latest technology. What measures do you suggest for improving their lives? AS_6

Project:

Mallaiah is a farmer in Sripuram village. There are about 100 houses in the village. Today all the work like planting, weeding, harvesting, spraying pesticides and fertilisers is done by machines. In olden days it was all done manually. There are more than 33 tractors and about 15 harvesters available in his village. A few of them are given on hire. The owners of the tractors charge Rs 300 per hour for tilling the fields. More and more farmers are now using these machines in their fields. Based on this information create a wall paper with illustrations and possible discussions between different groups of people in the village.




180
160
140
120
100
80
60
40
20
0
4
0
Urban
7
1
14
Rural
1
66
9
167
38

9.Public Health and the Government

As citizens of the country you expect the government to look after the basic needs of people. Clean drinking water, proper sanitation, minimum food, education and health facilities are required for all. No one should be excluded, nor should this be dependent on whether one is rich or poor. Since we consider all citizens to be equal these basic needs should be available to people in all situations. In this chapter, using the case study of health, we will examine how far the provisions of the Constitution are being satisfied in our country.

Find out:

- What steps can be taken to prevent Malaria?
- What are the reasons for doctors not accepting rural posting?
- Is the water you drink at school clean?
- Why are children given food in the *anganwadis*? Do they get adequate food to eat in the *anganwadis* of your area?

In order to prevent and treat illnesses we need appropriate facilities such as health centres, hospitals, laboratories for diagnosis, ambulance services, blood banks, etc. We require qualified health workers, nurses, doctors, lab technicians etc. who can advise, diagnose and treat illnesses. We also need medicines and equipment that are necessary for treating patients. To prevent illnesses, in addition to vaccinations we need enough food, safe drinking water, proper sanitation (safe disposal of feces) and a clean environment.

India has a large number of doctors, clinics and hospitals. India also has the experience and knowledge of running a public healthcare system. This is a system of hospitals and health centres run by the government catering to a huge population scattered over lakhs of villages. Moreover, there has been much advancement in medical sciences in the form of technology and treatment procedures.

India is the fourth largest producer of medicines in the world and is also a large exporter of medicines. India has the largest number of medical colleges in the world. Approximately 15,000 new doctors qualify every year. Health care facilities have grown substantially over the years. In 1950, there were only 2717 hospitals in India. In 1991, there were 11,174 hospitals. In 2000, the number grew to 18,218.

For some people the best facilities are available while the others do not have basic health care. This is contrary to what the constitution desires for all the people in the country. We have the money, knowledge and experience to change this situation. How can this be done would be discussed further in this chapter.

Healthcare Services

Kiran and Sarita are classmates in a school in Kakinada. They are close friends. Sarita comes from a well to do family, while Kiran's parents struggle to make ends meet. The rainy season had just ended and there was an outbreak of viral fever. Both fell ill at about the same time. When they were back in school, they talked about their illness.

Soon after Sarita got fever, her father took her to a private hospital near their house. Sarita's father paid Rs. 100 at the registration counter. They were given a card and asked to wait. Very soon, the doctor saw her, and recommended a number of blood tests and a chest X-ray. They went to the respective counters and everything was so easy and comfortable. Everyone was very polite and made them feel at home. When they were back to the doctor after the tests, he prescribed a medicine for the fever and asked them to visit again the following day with the test results. The following day, the doctor went through the test reports and said everything was all right. He felt Sarita had a viral infection and there was no cause for worry. He prescribed several medicines. After that she was feeling much better and was back at school.

Kiran also had fever and body ache. His father could not take time off his work and they went to the nearby Government Hospital only after two days. They had gone quite early that day, but already there was a long queue. Kiran was feeling very ill and could barely stand, but he had no choice. Finally, after waiting for almost three hours, they were able to see the doctor. After examining Kiran, the doctor said that they should get a blood test done. The blood test took another two hours. They were told to come the next day for the report. The same process of waiting was repeated. The doctor looked at the report and said that Kiran had a viral fever like many others in town. He prescribed some medicines for the fever and asked Kiran to take lot of fluids and rest. Kiran get well and attend the school.

Sarita really felt sorry for Kiran that he had to undergo so much hardship to seek treatment. She felt lucky to have gone to the modern private hospital where everything was so smooth and easy. When Kiran asked her how much they had spent, she said Rs. 3,500 for hospital charges and medicines. Kiran said, “We spent only Rs. 100.”

- Why did Sarita have to spend so much money? Give reasons.
- What problems did Kiran face in the Government Hospital? How do you think the hospital could work in a better manner? Discuss.
- What problems do we face in private hospitals? Discuss.
- Where do you go when you are ill? Are there any problems that you face? Write a paragraph based on your experience.

From the story above you must have understood that we can roughly divide the healthcare facilities into two categories: a) Public health services and b) Private health services.

Public Health Services

The public health service is a system of health centres and hospitals run by the government to provide treatment to all kinds of problems - from common illnesses to special services in both rural and urban areas. At the village level, there is a volunteer called ‘ASHA worker’ who helps people in getting health services. The *Anganwadi* centre in the village serves as a centre to provide nutrition and immunisation services to young children. Children’s weights are also monitored here to see whether they are growing as per their age. The Sub Centre covers a population of 5000 people, who may be in one or many villages in a rural area. This Centre has Multi Purpose Health Assistants (MPHAs) (Female and Male). They are trained in dealing with common illnesses and provide immunization to children, care for pregnant mothers, take steps to prevent diarrhoea and malaria. These Centres work under the supervision of Primary Health Centres (PHC) located at the mandal level. Each Primary Health Centre covers a population of 30,000 (roughly five Sub Centre areas). For every 4 to 5 PHCs there is a Community Health Centre which is a 30 bed hospital and has some specialists. Some surgeries are done at this level. At the divisional level is the Area Hospital that has 100 beds. At the district level is the District Hospital. Large cities have many government hospitals such as the one where Kiran was taken to.

Fig 9.1: Primary Health Centre

It is called ‘public’ for many reasons. The government in order to fulfil its commitment of providing healthcare to all citizens has established these hospitals and health centres. Also, the resources needed to run these services are obtained from the money that we all - the public - pay to the government as taxes. One of the most important aspects of the public health system is that it is meant to provide quality healthcare services either free or at a low cost, so that even the poor can seek treatment. Another important function of public health is to take action to prevent spread of diseases such as TB, malaria, jaundice, cholera, diarrhoea, chikungunya etc. This has to be organised by the government with the participation of people, otherwise it will not be

effective. Take the example of a campaign to see that mosquitoes do not breed in water coolers, roof tops etc. This has to be done with the participation of all the residents in the area. In a village, everyone must be involved to see that the water near taps/ handpumps does not form stagnant pools where mosquitoes breed.

Fig 9.2: A hospital ward inside a hospital

- What should be available in every village as part of the public health system?
- List some public health centres or hospitals near your place. From your experience (or by visiting any one of them) find out the facilities provided and people who run the centre.

Private Health Services

There is a wide range of private health facilities that exist in our country. In the rural areas one finds Registered Medical Practitioners (RMP). In rural areas, another popular provider of healthcare is the untrained medical person. Urban areas have a large number of doctors, many of them providing specialised services in their private hospitals and nursing homes. There are many private laboratories which test blood, urine, stool or offer special facilities such as X-ray, ultrasound etc. In fact, now there are large companies that run hospitals and some are engaged in manufacturing and selling medicines. Medical shops are found in every corner of the country.

As the name suggests, private health facilities are not owned or controlled by the government. Unlike the public health services, patients have to pay a lot of money for every service that they use. Private facilities are run to make profit, so they charge heavily for everything, even though the actual cost of the facility (e.g. Medicine, or a test) may not be so much.

- Private health services can mean many things. Explain with the help of some examples from your area.
- Why do you think people in the rural areas go to untrained practitioners, even though they know that they are not properly trained? Keep in mind the following aspects in discussion – trained doctors do not work in villages; people have faith in injection; treat on credit; accepts payments like grains or chicken.

Health Insurance

Medicine is too expensive for some chronic diseases to the public. That's why, if public will get the- health insurance, they may get qualitative services with the help of this insurance scheme. And, there are so many insurance companies in the market, provided by the public and private sectors.

Healthcare and Equality

In India we have a situation where private services are increasing but public services are not. The private services are mainly concentrated in the urban areas. As these services are run for profit, the costs are rather high.

But the situation in public service at present is somewhat changed due to the services of '108' and '104'. Where 108 reaches to provide first aid in emergency cases and also provide access by taking the victim (patient) for further follow up medication at near by health centre. While 104 is a vehicle with health personnel and medicines providing monthly visits to rural areas to checkup health and provide medicine etc.

In fact, barely 20% of the population can afford the cost of medicines that they require during an illness. Even for those who are not poor, medical expenses cause hardship. It was reported in a study that 40% of people who are admitted to hospital for some illness or injury have to borrow money or sell some of their possessions to pay the expenses.

For those who are poor every illness in the family is a cause of great anxiety and distress. What is worse, such a situation arises again and again. The poor do not have access to basic necessities like drinking water, adequate housing, clean surroundings etc. and are more likely to fall ill.

These families do not eat as much as they should and are thus undernourished. The expenses on illness make their situation even worse and they may have to sell off some of their possessions. Taking an ill person to hospital means loss of wages for another person for the day, or for many days if the patient is admitted in the hospital.

Basic public facilities

Water is essential for life and good health. We need water to meet our daily needs. Safe drinking water can prevent many water-related diseases. India has one of the largest number of cases of diseases such as diarrhoea, dysentery, and cholera. Over 1,600 Indians, most of them children below the age of five, reportedly die everyday because of water-related diseases. These deaths can be **prevented** if people have access to safe drinking water.

Like water, there are other essential facilities that need to be provided for everyone. Healthcare, sanitation, electricity, public transport, schools are also necessary. These are known as **public facilities**.

The important characteristic of a public facility is that once it is provided, its benefits can be shared by many people. For instance, a school will enable many children to get educated. Similarly, the supply of electricity to an area can be useful for many

people: farmers can run pumpsets to irrigate their fields, people can open small workshops that run on electricity, factories require this for their machines, students will find it easier to study and most people will benefit in some way or the other.

The Government's Role

Given that public facilities are so important, someone must take the responsibility of providing these to the people. This 'someone' is the government. One of the most important functions of the government is to ensure that these public facilities are made available to everyone. Let us try and understand why the government must bear this responsibility.

We have seen that private companies operate for profit in the market. In most of the public facilities, there is no profit to be had. For example, what profit can accrue to a company for keeping the drains clean or running an anti-malaria campaign? A private company will probably not be interested in undertaking such work. But, for other public facilities such as schools and hospitals, private companies may well be interested. We have many of these, particularly in large cities. Similarly, if you are living in a city, you will have seen private companies supplying drinking water in sealed bottles. In such cases, private companies provide public facilities but at a price that only some people can afford. Many people who cannot afford to pay for such facilities will be deprived of the opportunity to live a decent life. This is against the Constitutional promise for equal opportunities for all and the right to a decent life for everyone.

Public facilities relate to people's basic needs. Any society requires that these facilities are provided so that people's basic needs are met. The Right to Life in the Constitution is for all people. The responsibility to provide public facilities, therefore, must be that of the government. Compared to what we spend on armed forces the expenditure on health by government is minimal. India is one of the few countries where people have to spend a large amount on healthcare from their own pocket. Health expenses are also one of the reasons for people to be trapped in debts that they can't repay.

- Mark sentences that highlight the relationship between public health and expectations from the government.

Both central and state governments are responsible for health facilities. In the diagram below you can identify how the central government institutions function.

Status of Nutrition in Andhra Pradesh

Ministry of Health and Family Welfare

*Department of Health and Family Welfare takes care of the national level programmes for disease control, hospitals and dispensaries and medical education

*Department of AYUSH: looks after local systems of medicine such as Ayurveda, Homoeopathy, Unani, Siddha and research in them.

*Department of Health Research: is concerned with research in medical and health activities.

*Department of AIDS Control: takes up programmes for prevention and control of AIDS i.e. HIV.

Adequate food, safe drinking water, proper sanitation and prevention measures are basic to a healthy living environment. Healthcare doesn't mean only treating diseases but ensuring the provision of these basic needs. Are we able to do this? Let us examine the situation. Recent studies indicate that the level of nutrition of people in the country is alarmingly low. A large section of the population is living their life in a way that it may not be noticed that these people are undernourished all the time. This condition is seen though we have enough stock of foodgrains to feed everyone. These people don't have the purchasing capacity to buy enough food for their family. We know of this serious situation through nutrition studies carried out across the country.

All of us require some fat in our body to remain healthy to provide the source of energy for our activities and to protect ourselves from infections. People who are undernourished/ not eating adequately are not able to build the minimum fat requirement from their food for normal activity. They may not be ill but will often feel weak, tired and are likely to fall ill easily. This situation can be overcome by adequate food and not by any special medicine. It is like a situation of invisible starvation. They do get food to eat but less than what is required, therefore their starvation is not visible. Read about the Body Mass Index on page 196.

Let us examine the situation through the AP Human Development Report, 2007, which states: "Freedom from hunger and malnutrition is a basic human right and a fundamental prerequisite for human and national development. Better nutrition means stronger immune systems, less illness and better health. According to the World Health Organisation (WHO), poor nutrition contributes to 1 out of 2 deaths (53 percent) associated with infectious diseases among children below five in developing countries. In Andhra Pradesh, about 33 per cent of children below 5 years of age were characterised as underweight. … About 31 per cent of women and 25 per cent of men are undernourished."

What can be done?

(Work to be done in small groups of 4 or 5 students. Each group should present separately and then consolidate the results.)

- Write a short note on the health facilities available in your village or town. What are the problems that people of your neighbourhood face when they go to government/ private hospitals?
- Most of the medical facilities in both the private and public sectors are located in urban areas. A study conducted during 2003 based on a sample survey in selected areas found that most of the qualified private doctors (79 per cent) were in the urban areas. The actual availability of doctors in rural areas, though officially posted in these areas, may be negligible, given the widespread prevalence of absenteeism. Discuss the reasons for this situation. Talk to people in your

area about this problem and in what ways this be can tackled.

- Use the following questions to do a small survey on immunisation of children in your area (in five households having children under 2 years).

a. Do you have an immunization card for the child?

b. Did your child get a vaccine on the left arm that has left a mark? (Look for a scar if you can.)

c. Did your child get vaccination on the buttock?

d. Did your child get polio drops? How many times?

e. Did your child get a vaccination on the thigh at 9 months along with a spoon of medicine?

f. Did your child get any vaccination at 18 months of age (if the child is older than this)? Did she/ he get any medicine to drink also?

For each question, answer with Yes / No; No. of doses (where applicable); DK (for don't know)/ NA (not applicable; for example, question 'f' will not be applicable if the baby is 1 year old). Discuss your results.

Note:

BCG against TB is given on the left arm and leaves a small scar.

DPT (against three diseases) is given in the buttock or in the thigh along with two drops of polio vaccine in the mouth. This is usually given as three doses at 1.5, 2.5 and 3.5 months, but can be given later.

Measles vaccine is given in the front part of the thigh at 9 months, along with 1 ml of vitamin A orally.

At 18 months of age, a booster dose of DPT and OPV are given, along with another dose of vitamin A (2 ml is given this time, instead of 1 ml).

- The *Aarogyasri* scheme was started as a medical insurance scheme to white card holding families, for treatment that requires hospitalisation. The scheme covers very large number of illnesses and includes many private hospitals as providers. Discuss with some people in your neighbourhood and write a short note on the effectiveness of the scheme.
- In your opinion, what is one most important improvement that should be made for the mid-day meal being served at your school?
- In India about one lakh women die each year of complications from pregnancy. It was observed that poor maternal health and nutritional status and inappropriate management of labour during delivery were responsible for many of the deaths of children. Do you think that 104 and 108 services have made a difference to the above situation? Discuss.

Key words

1. Public Health Centres 2. Area Hospital 3. Public amenities
4. Nutrition 5. *Arogyasri* Scheme

Improve your learning

1. Correct the false statements AS_1

a. Most rural areas have trained doctors.

b. There are more facilities in hospitals of private sector than the public sector.

c. Nutritious food helps in improving the health scenario.

d. Some doctors may involve in unnecessary treatments to make money.

2. Jayamma uses the following. Which of these will you include in basic public facilities: AS_1 **a.** Drives Scooter to school. **b.** Sends her child to *Anganwadi.* **c.** Owns a television set. **d.** Has a mobile phone. **e.** Sends letters by post office.

3. Identify the sentences in this chapter that argue about the role of the government in providing public health. AS_3

4. Discuss which among the following measures will you consider as instances – OR not an instance of improving the healthcare. Write down why you think so. AS_1

a. TB patients are given free medicines.

b. In some villages clean drinking water facilities are arranged.

c. Shopkeepers selling medicines for cold, fever, headache etc.

d. The government provides foodgrains in Fair Price shops.

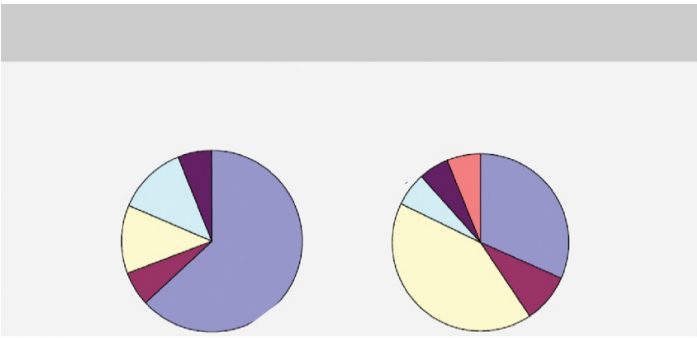
5. Priyamvada runs a private hospital. This has more facilities than that are available in a government hospital. Satyanarayana works as a government doctor in a mandal. Can you write an imaginary dialogue between them about access to health services? AS_4

6. Health is not limited to providing medicines. In this chapter there are other aspects of health that are mentioned (like clean water etc). Bring them together and write a paragraph about such aspects. AS_2

7. Following figure shows how people get money for hospitalisation in Andhra Pradesh. Nearly 65% of the people below poverty line have to borrow money. Identify this in the chart and mark the percentage. Those above poverty line spend 45 % of the hospitalisation expenditure from their savings. Identify this in the chart and mark the percentage. Those above poverty line borrow only 35%. Identify this in the chart and mark the percentage.

Can you also roughly estimate share of other means through which people meet their hosptialisation expenses in the chart

below? AS_3



Financing of Hospitalization Expenses in Andhra Pradesh, by source and economic status

8. Conduct a survey on government welfare schemes on health. List the beneficiaries in your area. AS_3
9. To know about the prevention of contageous diseases, what questions do you ask your region's Health worker. AS_4
10. What type of services would be rendered by '108' during emergencies? AS_6

Savings

Current income

Sell assets

Below poverty line

Other

Borrow

Self Assets

Reimbursement

Savings

Other

Above poverty line

Current income

Borrow

1. Untitled-3