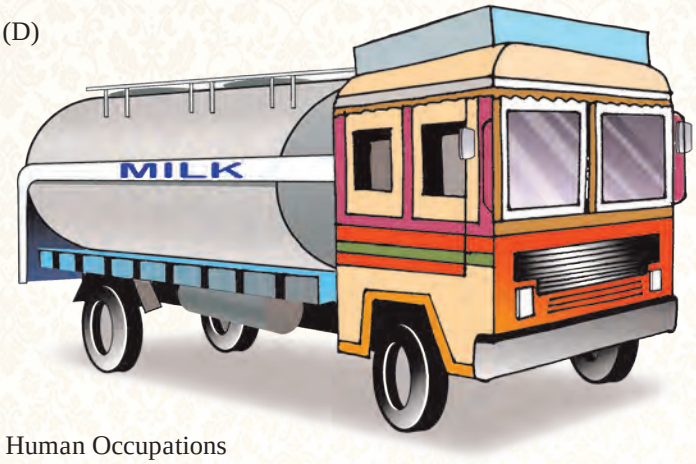
10. Human Occupations

(A)

(B)

(C)

(D)



Answer the following questions after observing the pictures in figure 10.1.

- What are the cows and the buffalo in picture A doing?
- What is being obtained in picture B?
- What is happening at the Milk Collection Centre in picture C?
- In picture D, what is being transported? Where could the tanker be going?
- Which products are seen in picture E? From what have these products been made?
- What else is happening in picture E?
- Out of the products shown in picture F, which products do you use?
- What would be the main difference between milk and milk products?
- Do these products perish quickly like milk?

Explanation

All the above pictures are related to the rearing of domestic animals, obtaining milk from them, selling milk, processing milk at milk processing centres, making ghee, butter, cheese, *shrikhand*, paneer, milk powder, etc. from milk, selling them in the market, etc. This work is carried out at different levels. Man undertakes all these activities to satisfy his own needs. We classify these activities on the

Figure 10.1 : Human Occupations

basis of their nature and the products they yield.

Now look at the pictures again and answer the following questions.

- Which of these activities is undertaken to obtain a product from nature?
- Which product is obtained through it?
- How long does this product last?
- In which picture is the product obtained from nature being collected?
- Which service did the milk producer get through this activity?
- Where is the milk being taken? What happens to the milk thereafter?
- What milk products are seen in the picture?
- Who inspects these products?
- What does the shopkeeper do with these products?
- Which of these products are perishable and which are non-perishable?
- Will the price and weight of these products be same as that of the milk?

The teacher should have a detailed discussion about this with students.

Use your brain power!

Milk is available at Rs 40 per litre while *dahi* at Rs 60 per kg and paneer at Rs 200 per kg. If both are obtained from milk, why is there so much difference in their prices?

- We carry out many activities to fulfil our needs. We have many occupations, industries, trades, etc. Some of these activities are directly dependent on nature. It means that the products obtained in these activities are obtained directly from nature. Cows and buffaloes are animals. We domesticate them. See picture A. We get milk from them. Therefore, this occupation is directly dependent on nature. Such occupations which are dependent on nature are called primary occupations, e.g. animal husbandry, fishing, etc.
- Some products obtained in primary occupations are used directly while others are used after making some changes in them. Now see picture E. In this picture, the milk is being processed after bringing it to the dairy, that is, the product obtained from nature is processed and made into different products. These products are more durable. Their quality has enhanced too. And, therefore, their price is also higher. For example, *shrikhand*, butter, cheese and milk powder are processed from milk. This processing is an industrial activity. Industries are based on raw materials. More durable goods are produced in an industry. The raw material supplied to the industries is often obtained from nature, i.e., from primary occupations. Occupations dependent on primary occupations

(E)

(F)

are called secondary occupations.

- Now look at pictures C, D and F. You will see milk collection and sale of milk, transport of milk and sale of milk products respectively. All these activities are related to the products of primary and secondary occupations. Many a times, these occupations provide complementary services to the other two occupations. Such occupations are called tertiary occupations. These occupations are complementary to all other occupations. These occupations are also called 'service occupations'. These include transport of goods, loading and unloading of goods and sale of goods, etc.
- Now look at picture E. Here you can see a person testing the prepared milk products. This person is testing the 'quality' of the products. To do this work, the person must have some special skills. This is also a type of service. But this service is not an ordinary one. It requires special expertise and therefore such services are called quaternary occupations.

Not all the services are directly related to primary or secondary occupations, for example, those of a driver, knife grinder, policeman, the postal service, etc.

Think a little!

- Who examines us when we fall ill?
- Who checks our examination papers?
- Who prepares the designs of buildings?
- Who produces machines and looks after their maintenance and repairs?

Look at the pictures in figure 10.2 carefully. We are learning the classification of occupations. See if you can answer the following questions related to sugar production.

- Classify the occupations from primary to quaternary.
- Which raw material is used in the secondary occupation?
- Which is the finished product obtained in the secondary occupation?
- Which are the services in tertiary occupations?
- Which picture is related to a quaternary occupation? Can you name that occupation?

Try this activity.

Think of more such chains of occupations. Draw their pictures and classify them from primary to quaternary as above.

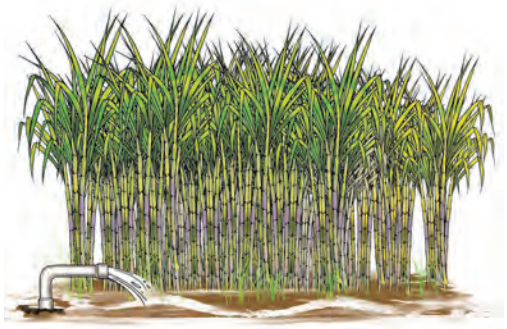
Think and Discuss

What effect does nature have on our occupations? Think a little. Give a thought to the following issues. Discuss them in the class. Write two paragraphs about it.

- There have been no rains at all (drought).
- A storm strikes.
- There was an earthquake.
- Untimely rains.
- Good rains.
- Excessive rains and floods.
- All of a sudden, a volcano erupts.
- A tsunami hits.

Do it yourself !

- Which occupations are found in your area?
- Which occupation is practised on a large scale?
- Find the reasons behind it.
- Discuss and find the reasons behind a particular industry being located in your area.
- Both human and natural factors affect occupations. Can you find those factors?
- Obtain information about the damage caused to the environment through different occupations.

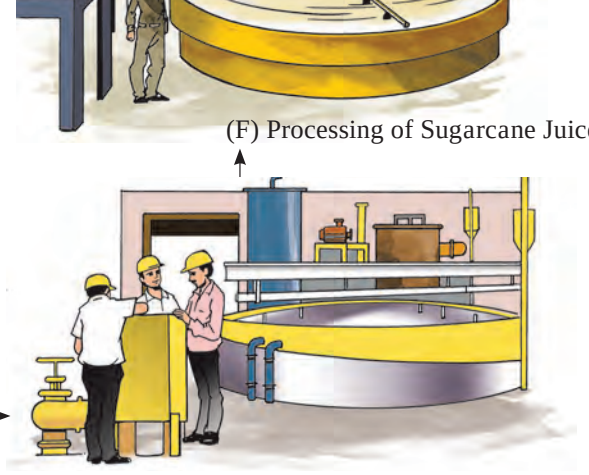


(A) Sugarcane Field

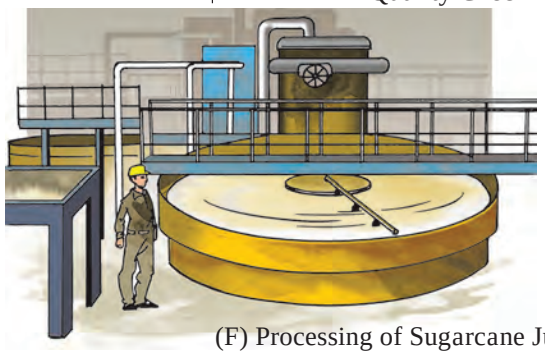
(B) Harvesting of Sugarcane

(C) Transport of Sugarcane

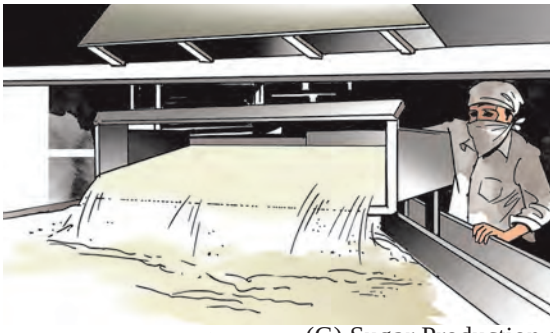
(D) Sugarcane being Collected at the Factory



(E) Inspection and Maintenance of Machinery in the Factory



(F) Processing of Sugarcane Juice



(G) Sugar Production and Quality Check

(H) Sacks of Sugar being Carried

(I) Sale of Sugar

Figure 10.2

This is how we classify the human occupations. Different occupations are practised in different countries of the world. Through these occupations, economic transactions occur within a country and between various countries. These transactions decide the country's production of various goods and their annual income. This, in turn, is used to decide the extent of the country's development.

Observe figure 10.3. These pie charts show the percentage of manpower engaged in various occupations in the countries of Bangladesh, United Arab Emirates (UAE) and Turkey. Each pie chart shows the percentage of primary to tertiary occupations. Answer the following questions on the basis of the pie charts.

- Which country has more manpower engaged in primary occupations?
- Which country has more manpower engaged in secondary occupations?
- Which country has more manpower engaged in tertiary occupations?
- Which country has almost equal manpower engaged in all the occupations?

Countries which have more manpower engaged in tertiary activities are considered to be developed countries while countries which have more manpower engaged in primary activities are considered to be developing countries.

Now rank the countries above from developed to developing.

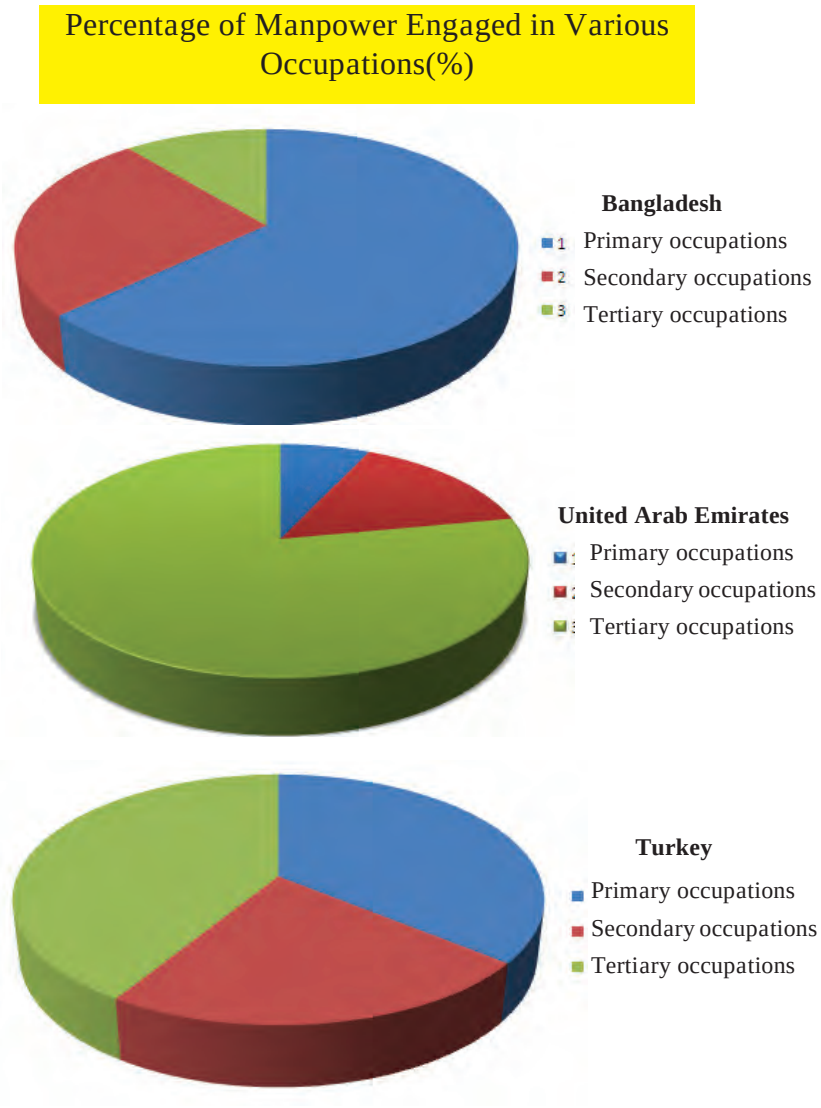


Figure 10.3 : Percentage of Manpower Engaged in Various Occupations in Some Countries

I can do this!

- *Name different occupations.*
- *Tell the difference between various occupations.*
- *Classify the occupations from primary to quaternary.*
- *Identify the factors that affect the various occupations.*

Exercises

(A) Select the correct option :

(1) Serving as a ..... is a tertiary type of occupation.

(a) bus conductor (b) veterinary doctor

(c) brick kiln worker

(2) In the tropical areas, we mainly see ..... occupations.

(a) primary (b) secondary

(c) tertiary

(3) Amol's Granny sells *papads* and pickles. Which type of occupation is it?

(a) primary (b) secondary

(c) tertiary

(B) Give reasons :

(1) The type of occupation determines a person's income.

(2) Primary occupations are associated with developing countries while tertiary, with developed countries.

(3) Quaternary occupations are not commonly seen.

❊ Activity

Visit a secondary occupation in your area. Gather information related to that occupation using the following points and note it down.

- Name of the occupation
- Raw material used
- Source of raw material
- Finished product
- Market for finished product
- Tertiary occupations required in it.

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Specimen picture of a student's collection

Glossary

Geographical Terms and their Meaning

- **abiotic:** non-living components in the environment, e.g., air, water, minerals, etc.
- **Antarctic Circle:** the parallel of latitude in the southern hemisphere having an angular distance of 66°30' from the equator. This parallel demarcates the limit of sunshine duration. The maximum duration of sunshine to the north of this latitude is up to 24 hours whereas it goes on increasing towards its south and becomes 6 months at the South Pole.
- **Arctic Circle:** the parallel of latitude in the northern hemisphere having an angular distance of 66°30' from the equator. This parallel demarcates the limit of sunshine duration. The maximum duration of sunshine to the south of this latitude is up to 24 hours whereas it goes on increasing towards its north and becomes 6 months at the North Pole.
- **atomic energy:** the energy that gets generated through the splitting of an atom. This energy is obtained by using some specific minerals like uranium, radium, thorium, etc. that are available in nature.
- **basalt:** a type of igneous rock. It is formed after the cooling of the lava that is ejected out during a volcanic eruption. Basalt is impervious, heavy and compact. This rock has a high proportion of iron.
- **Bhuvan:** the database created by the Indian Government with the help of indigenous remote sensing information and computer technology. It works in the same way as Google Maps or Wikimapia. This technology is totally of an Indian origin. It can be used for preparing maps and fixing the location of places.
- **biogas:** gas released by bio-waste. Biogas can be produced from litter, animal excreta, etc. Biogas is inflammable and hence it is used as an energy resource for domestic use.
- **biotic:** the living component of the environment. It includes plants, animals and micro-organisms.
- **cloud:** a floating cluster of microscopic water droplets and snow particles in the atmosphere.
- **continentality:** a condition of being in the interior part of a continent. As there is less moisture in these regions, the air is generally dry. Hence the climate becomes extreme. The difference in the day and night temperatures (range of temperature) is high. The difference in the temperatures of the summer and winter seasons is also pronounced.
- **conventional:** the things that are followed for a long period of time. We have been using energy resources like wood, coal, mineral oil, etc. since centuries. Hence these energy resources are called conventional resources.
- **economic transactions:** the exchange of money, or of money and articles. Such exchanges take place at places like the share market, banks, markets, etc.
- **energy resources:** such resources from which energy can be generated, e.g., coal, mineral oil, wind, running water, etc.
- **equator:** 0° parallel of latitude. It bisects the earth into the northern and southern hemispheres. It is the largest parallel (a great circle).
- **forest cover:** land occupied by forests. Mostly, the forest cover develops in a region through the natural growth of plants. It takes many years for a forest cover to develop. Forests mainly house indigenous plants that grow naturally.
- **Geographical Information System (GIS):** The database of geographical information created through statistical methods. This can be used for discovering new characteristics of the planet earth. This has been mainly used in remote sensing technologies.
- **Global Positioning System (GPS):** a technique for determining the location of any place on the earth with the help of satellites and computers. The GIS program is used in this technology.
- **globe:** a spherical model of the earth.
- **graticule:** an imaginary network formed on the

surface of the earth by parallels of latitude and meridians of longitude intersecting one another.

- **green house gases (GHG):** such gases in the atmosphere which retain the heat. Due to these gases, air temperature increases. These gases include carbon dioxide, chlorofluorocarbon (CFC), water vapour, etc. Due to the increase in the radiation of these gases in the earth's atmosphere, the temperature of the earth is increasing.
- **hemisphere:** half part of a sphere. The northern and southern hemispheres of the earth get defined by the equator. Similarly, considering 0° and 180° together, the eastern and western hemisphere get defined.
- **humidity:** the measure of the vapour in the air. It is expressed as a percentage.
- **humus:** decomposed biotic material in the soil. It includes roots of plants, litter, etc. Completely as well as partially decomposed biotic materials are both part of humus.
- **igneous rock:** a rock formed after the cooling of lava. This gets formed on the surface of the earth or below it. Its types are identified by the chemical constituents in the rock. The types are granite, basalt, dolomite, etc.
- **industrialization:** development and concentration of various types of manufacturing or assembly units in a region. Growth of industries is a measure of the economic prosperity and rise in the standard of living. However, industrialisation also leads to issues like pollution and environmental degradation.
- **isotherm:** a line on the map joining places of equal temperature is called an isotherm.
- **latitude:** the angular distance of a place from the equator. This distance is measured at the centre of the earth on either side of the equator. (north and south)
- **lava:** the hot and semi-fluvial material that is poured out during a volcanic eruption. Extrusive igneous rocks are formed out of lava.
- **longitude:** the angular distance of a place from the Prime Meridian.
- **magma:** the molten material located below the crust of the earth. It is mostly semi-fluvial in nature. The magma at times gets cooled and solidified in the crustal portion. Such solidified magma gives rise to intrusive igneous rocks.
- **metamorphic rock:** a rock formed out of igneous or sedimentary rocks through the process of re-crystallization of the minerals, caused by intense heat and excessive pressure.
- **minerals:** compounds formed naturally through inorganic processes. However, some minerals like diamond or graphite are in the form of singular elements. Minerals have a definite chemical composition.
- **natural resources:** items / things that are available in nature, and are used by humans, e.g., wood, minerals, etc. Humans satisfy their needs with the help of natural resources.
- **nearness to the sea:** The temperatures of coastal regions are influenced by the nearness of sea waters. Evaporation of sea water reduces the difference between the minimum and maximum temperatures in the coastal region. Hence, the climate here becomes equable.
- **North Pole:** The end of the earth's axis that points towards the Pole Star.
- **northern hemisphere:** half of the earth's sphere extending from the equator to the North Pole.
- **ocean current:** the oceanic water that travels with a greater speed. These currents move in a curved manner in the areas between the equator and the North or South Poles. Ocean currents are of two types–warm and cold currents. While the warm currents move from the equator to the North and South Poles, the cold currents move from the North and South Poles towards the equator. They perform a major role in maintaining the balance in the distribution of heat over the earth. Wind speed, differences in temperature and density of oceanic water are the major reasons for these currents.

- **parallel of latitude:** an imaginary circular line on the surface of the earth. The plane of its circle intersects the axis of the earth at a right angle. These circles are parallel to each other.
- **physiography:** the physical set-up of land in a region. It gets defined due to landforms like a plain, hill, valley, mountain, spurs etc. The elevation of land and steepness of slope vividly bring out the differences in the physiography.
- **planetary winds:** the winds that blow from high pressure belts towards low pressure belts occupying vast areas of the planet. They blow regularly. These include the easterlies (trade winds), westerlies and polar winds.
- **plankton:** the plant or animal micro-organisms floating in sea waters, or moving at a very slow speed. These are the feed for fishes. Hence, the areas of sea where planktons are abundantly found are the areas where fish population is always high.
- **precipitation:** the showering of water droplets or snow particles from the atmosphere on to the surface of the earth. Rainfall, snowfall, hailstones, etc. are forms of precipitation.
- **pressure belts:** These are high and low pressure areas over the globe. Pressure belts are the result of temperature differences across the latitudes. In the hot torrid zone, air expands, becomes lighter and moves upward. This gives rise to a low pressure belt. In the cold frigid zone near the Poles, temperatures are very low, air is dense. This gives rise to a high pressure belt. Besides these two, there exists a high pressure area around 350 north and south parallels, and a low pressure belt near the Arctic and Antarctic circles.
- **primary occupations:** Occupations that are directly related to and dependent on natural resources. In these occupations, natural resources are used or collected without any processing. In these occupations, the produce is a result of natural processes. Activities like agriculture, animal husbandry, mining, collection of forest produce etc. are included in this category.
- **Prime Meridian:** the meridian that passes through Greenwich city. This meridian is considered as zero degree meridian.
- **production:** (1) total quantity of products obtained from the raw material through a process or assemblage or manufacture of altogether different items, e.g., jaggery from sugarcane; steel from iron ore; automobile engine from spare parts. (2) the farm produce obtained from investment in agriculture
- **quaternary occupations:** a special group of service sector. These services require more specialized skills than the tertiary services. They require highly educated personnel. These services yield high returns. This group includes doctors, engineers, teachers, software engineers, etc.
- **range of temperature:** the difference between the mean maximum and mean minimum temperature of a place. The difference between daily max – min temperatures is called the diurnal range of temperature. The difference between the mean maximum and mean minimum temperatures in a year is called the annual range of temperature.
- **rock:** a homogeneous mixture of different minerals.
- **salt pan:** a shallow depression in the ground in which sea water evaporates to leave a deposit of salt.
- **secondary occupations:** occupations in which the raw material obtained or collected through primary occupations is processed to make new and more useful objects. Occupations like obtaining pure metals from metal ores, making furniture from wood are included in this category. Assembly industry is also included in this group.
- **soil:** the thin uppermost layer on the earth's surface. Its thickness is generally less than one metre. It contains minerals and biotic materials. The sand and finer particles in the soil are formed through the process of weathering and erosion, whereas the humus is created through the decomposition of biotic materials. The process of

soil formation is very slow. Soils are essential for the growth of plants. The climate of the region and the parent rock influence the type of soil.

- **South Pole:** the end of the earth's axis that is opposite to the North Pole.
- **southern hemisphere:** half part of the earth extending from the equator to the South Pole.
- **temperature:** a measure of the heat of an entity or a place.
- **tertiary occupations:** occupations supplementary to the primary and secondary occupations. Through these occupations, no production of objects takes place but they provide various services to the society. For example, tinning utensils, sharpening knives and scissors.
- **thermal belts:** the belts of high, moderate and low temperature formed on the surface of the earth due to its spherical shape and uneven distribution of heat received from the sun. Accordingly, tropical (torrid), temperate and polar (frigid) belts are identified. These belts influence the air pressure, winds and rainfall.
- **tides:** the periodic raising or lowering of sea-level caused by the combined effect of gravitational attraction by the sun and the moon, and the centrifugal force of the earth. The increase in the sea-level is called as high tide whereas the lowering of sea-level is called low tide.
- **Tropic of Cancer:** a parallel in the northern hemisphere at an angular distance of 23°30' from the equator. All the places located in the area between the equator and this parallel experience perpendicular sun rays twice a year. This parallel forms the northern limit of the apparent movement of the sun observed from the earth. After reaching this parallel, the sun appears to be moving towards the south.
- **Tropic of Capricorn:** the 23°30' parallel in the southern hemisphere. Up to this parallel, the sunrays can be perpendicular. All places located between the Equator and the Tropic of Capricorn experience perpendicular sunrays twice in a year. It defines the southern limit of the apparent movement of the sun. After reaching this latitude, the sun appears to move in a northward direction.
- **urbanization:** the transformation of a settlement or village into a town. This change involves changes in the area and population of the region. Urbanization includes increase in secondary and tertiary occupations, and spread of modern thinking. Smaller settlements / villages becoming part of larger cities is also called urbanization.
- **wave:** a wave is defined as a transfer of energy. Ocean waves travel through the medium of water. The water doesn't actually travel with the wave, but only moves up and down. It's the energy that travels with the wave. Ocean waves are usually generated by wind on the ocean's surface.
- **yield:** the production in comparison with the investment, e.g., production per hectare of wheat, or production per man hour.

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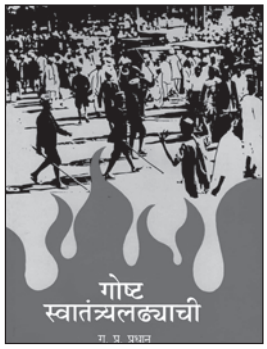

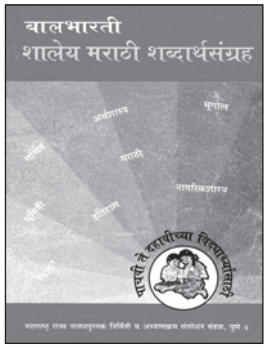

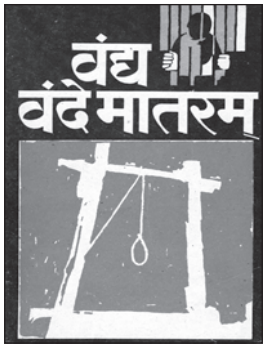

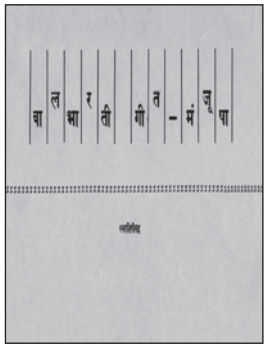

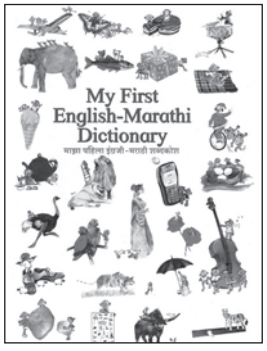

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