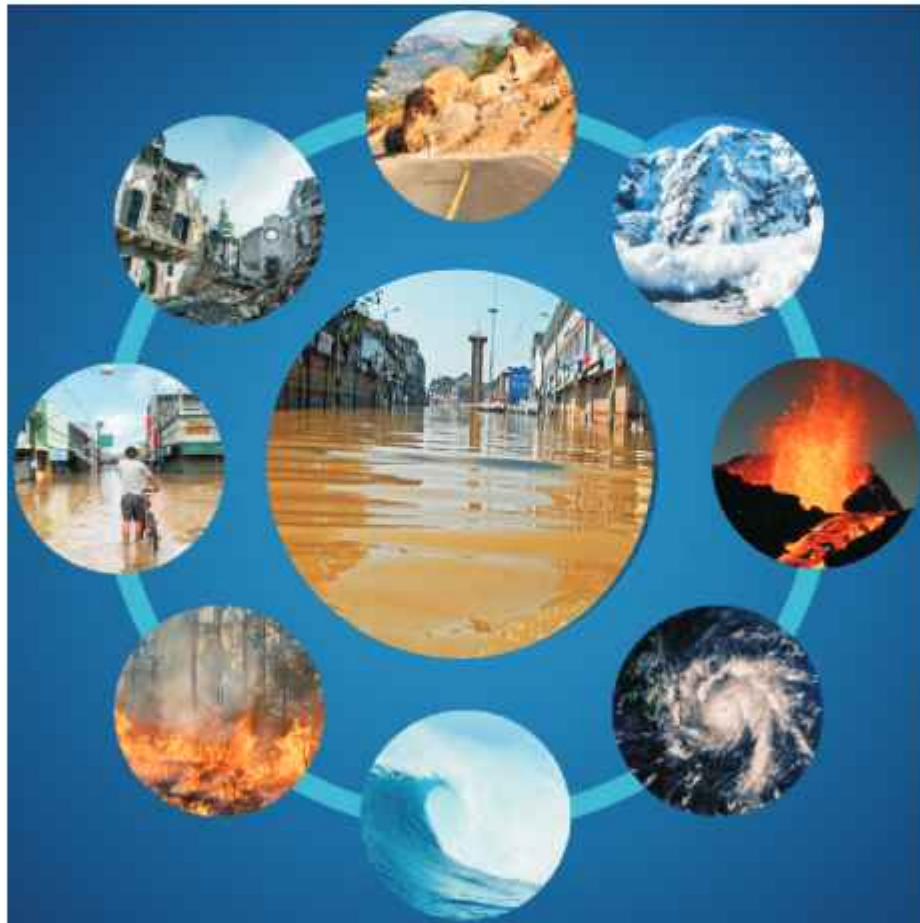


CLASS-X

**A Textbook of Economics**  
**DISASTER MANAGEMENT**  
**AND**  
**ROAD SAFETY EDUCATION**  
**Class - X**



**THE JAMMU & KASHMIR**  
**BOARD OF SCHOOL EDUCATION**

## Foreword

The Jammu Kashmir Board of School Education is perpetually striving to upgrade the school curriculum and courses of studies exclusively in light of NEP, in order to propound comparative comprehensive and holistic contents/courses of studies for the budding learners in the contemporary atmosphere. The review/revision exercise of a book is a perpetual activity to imbibe the concept of modern needs and challenges with a view to harmonise and witness a competent, capable and diligent posterity.

The subject of Social Science has been introduced in the school curriculum to familiarize and inculcate interest among the students to be abreast of the importance of social aspects in the life of human beings. The course is meant to enable the children to understand the society and the world and develop such values which help in promoting the quality of individual as well as community as a whole.

The textbook of the components of Economics, Disaster Management and Road Safety Education under Social Studies for class X has been developed and made available by virtue of vigorous efforts of the subject experts through a series of workshops and interactions.

The J&K Board of School Education gratefully acknowledges the use of material from the textbook published by the NCERT, New Delhi.

The JKBOSE is open to comments and suggestions for qualitative improvement in the prescribed textbook.

(PROF.(Dr.) PARIKSHAT SINGH MANHAS)  
**Chairman JKBOSE,**



## Acknowledgment

A textbook is the true companion of any student in his/her journey of learning. A well-developed textbook not only adds to the knowledge of the students but also inspires them for further reading on the subject. The Jammu & Kashmir Board of School Education is grateful to all the experts who have contributed in the review, revision and updation of the curriculum of the components of Economics, Disaster Management and Road Safety Education under Social Science as per the guidelines of NEP. I am sanguine that the content developed in this textbook shall be immensely helpful in transaction of teaching-learning in the classroom.

It is apt to mention that every effort has been made to offer the instructional material for the budding scholars in accordance with the ongoing contemporary challenges to enable them to gain the knowledge of economics and other topics incorporated in this textbook. This endeavour shall certainly benefit the student community and protect the academic interests of all the stakeholders.

Developing a textbook for any class is not final event; in itself it is open to changes and improvement. It not only requires the updated knowledge in the domain subject, intellectual capacity and expertise but also a high level of patience to stitch and re-stitch the contents to finalise the content that best suits the need of the learners. I express my gratitude to Ex-Chairperson, Ex-Secretary and Ex Director Academics for their contribution in the development of this textbook.

I gratefully acknowledge, Chairperson, JKBOSE, Prof. (Dr.) Parikshat Singh Manhas and Secretary, JKBOSE, Ms. Manisha Sarin, JKAS for permission to reprint this edition of the textbook. My sincere gratitude is due to the Curriculum Development & Research Wings- JD & KD & Textbook Development Committee, JKBOSE for their untiring efforts put in making this textbook available for the students of class X.

As quality can be ensured only through continual striving for improvement, suggestions and feedback from the stakeholders shall be highly appreciated.

**(Dr. Sudhir Singh)**  
**Director Academics, JKBOSE**

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**DR. DIPANKAR SEN GUPTA**

**Professor**

**DR. DIPANKAR SEN GUPTA**

**Department of Economics**

**University of Jammu**

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5. Mrs. Radha Sharma Lecturer in Education DIET, Jammu



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## UNIT- I

### Understanding J&K Economy

- Contribution of mayor sectors In the GDP,
- Economic Importance & Primary Sector
- Agriculture allied sectors, major crops, livestock, horticulture, Fisheries, Forest, Mining and Quarring.
- Economic Importance & Tertiary Sector
- Hurdles in Economic development



As you have studied various sectors of economy in the previous class we will highlight the regional aspects of such sectors. Our focus would be to familiarize the students about the activities that exist in such sectors at UT level.

### ECONOMY AND ECONOMICS

The term Economy refers to activities related to the production and distribution of goods and services in a particular geographic region. Thus, while talking of India, it means goods and services produced within the geographical area of India. The measure of the economy is Gross Domestic Product. (The concept of GDP has been discussed in previous class) The science of using scarce resources for producing goods and services is called Economics. Time can also be termed as a resource. Activities of a day have to be necessarily managed in only twenty four hours not more than that.

#### Let us Be Reminded:

**Primary Sector:** Primary sector is the sector which mainly deals with (i) extraction/ cultivation of goods from natural resources such as mines, land etc. (ii) Breeding of plants and animals.

**Secondary Sector:** Secondary sector is the sector which deals with processing and conversion of raw-materials into finished goods.

**Tertiary Sector:** Tertiary or service sector is the sector which deals with providing support to the primary and secondary sector in the form of bank, insurance, warehousing etc.

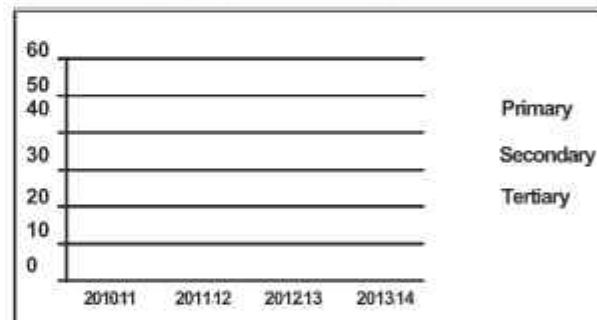
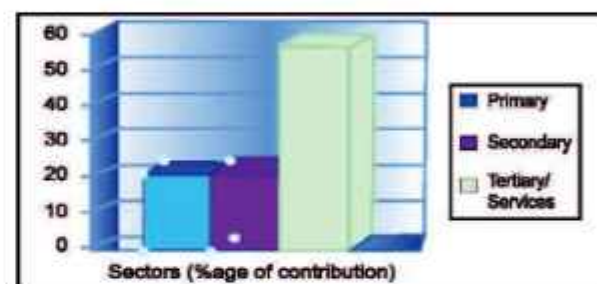
#### The Economy of Jammu and Kashmir:

Traditionally, Jammu And Kashmir UT has been an agrarian UT . However over time many other sectors have also been contributing in the growth of UT domestic product.

All the three sectors described above contribute significantly to the economy of Jammu and Kashmir. In the following pages, these sectors will be discussed with reference to our UT. However, in terms of shares of the economy of the UT, the contributions of the primary, secondary and tertiary sectors of GSDP of UT (Gross UT Domestic product) are 21%, 22%, 57% respectively. The GDP of

UT of J&K at 2004-05 prices is 45126.30 crores for 2014-2015. Agriculture in the primary sector, construction in the secondary and public administration in the tertiary sector have emerged as largest contributors towards UT GDP. It is worth mentioning that per capita income (ie GSDP of UT of J&K divided by the UT population) of our UT has declined by approximately 2.66% at constant prices in the same period.

The progress for last few years in the different sectors of an economy of Jammu and Kashmir has been depicted in the graph as under:



Graph showing trend of all the three sectors of economy for four years:

The preceding graph clearly shows that primary and secondary sector in Jammu and Kashmir can be described as being either stable or slightly declining. The share of these two sectors remains in between 20 to 25 percent. On the other hand the share of the services sector is in between 55 to 60 percent and shows an upward trend.

1. The Primary sector is important since approximately 80% of the UT's population resides in rural areas and directly or indirectly depends upon this sector for livelihood and employment. This sector consists of



extraction / processing of goods mainly by the utilization of natural resources. Activities like Agriculture, Horticulture, Livestock, Forestry, Floriculture, Sericulture, Fisheries and Mining are considered to be Primary Sector activities. These important components of primary sector are discussed below.

## ECONOMIC IMPORTANCE OF PRIMARY SECTOR

The Economic importance of the primary sector can be understood from the fact that this sector provides livelihood to the 80% of the state's population. The people, engaged in the primary sector earn money by selling the agricultural and allied products for income and livelihood. A large number of people across the globe including our country earn their livelihoods directly or indirectly from agricultural and allied products.

**1.1 Agriculture:** Agriculture is defined as cultivation of domesticated plants. Domesticated plants are those whose behavior and appearance have altered as a result of being controlled by human beings for several generations. Agriculture involves cultivation of crops for subsistence as well as commercial purpose. In other words it is growing or raising of crops for personal use and / or for earning of money. The main crops grown in our UT are RICE, MAIZE, PULSES and WHEAT.

### KHARIF AND RABI CROPS:

Kharif and Rabi crops are identified on the basis of season. Kharif crops are cultivated in the monsoon season from May to October. Rabi crops are winter crops cultivated from November to March.

### Exercise 1:

The teacher is required to ask the students for identification of the crops being cultivated in above mentioned seasons. This process should be thinking one and will help the students to relate the content in this book with what actually goes on in the field.

**A. RICE:** Rice is an important Kharif Crop. Rice is grown all over UT. Jammu district and Plains of Kashmir are major areas for rice cultivation.

Different varieties of rice are grown in the UT. However the Basmati Rice grown in RS Pura and adjoining areas of Jammu division is exported in large quantities and has become world famous because of its flavor, quality etc. In Kashmir division Anantnag district is popularly known as "Rice Bowl of Kashmir". In Kashmir however, the rice that is cultivated is consumed in the Valley itself.

**B. MAIZE:** Maize is another important Kharif crop. It is also cultivated all over the UT. Maize is mainly grown in Udhampur, Doda, Rajouri, Kupwara and Anantnag districts of Jammu and Kashmir.

**C. PULSES:** Pulses are largely grown in Kharif season. The major pulses grown in the UT are Rajmash (Red Kidney Beans), Mung, Mash etc.

**D. WHEAT:** Wheat is another crop grown in our UT mainly in Jammu division. However it is to be understood that wheat cultivation takes place largely for self-consumption and its role as a cash crop ie (grown for the market) is not significant.

### GREEN REVOLUTION:

Green revolution is a broad programme launched by central government to increase the productivity of the agriculture. The programme was primarily started in Punjab and later extended to other states of India. The agricultural production was increased by using HYV (High Yielding Variety) seeds. The intention was to attain the self sufficiency in the food grains and to move from subsistence to commercialization.

**1.2 Forest:** A large area of land covering trees and plants is referred to as a forest. These forests provide timber for construction purposes, firewood and other relevant materials used at different places. The region wise forest cover of erstwhile Jammu and Kashmir is as follows:

Sr. No	Division	Under forests (Sq KM)
1	Jammu	12066
2	Kashmir	8128
3	Ladakh	36

The kinds of forests found in different areas of our UT are discussed below:



**Jammu:** The forests found in lower areas of Jammu are called Sub-tropical Dry deciduous forests. The common trees found in the area are: *Khair, Tahli, Kokko (Silk Tree)* The forests found in the upper areas of Jammu like parts of Kathua District (Bani and Lohai-Malhar blocks), parts of Udhampur, Reasi, Rajouri and Poonch as well as the Chenab Valley are Himalayan moist temperate forests. The common trees found there are Deodar, Chir etc.

**Kashmir:** The forests found in Kashmir valley are termed as Himalayan Dry Temperate Forests. The popular tree species found there are as: Deodar, Pine, Budul, Maple etc.

**Ladakh:** The forests found here are called as Forests in Cold arid zone. These include Kikar Kul etc.

The forest based business / industries are discussed below:

**Joinery and Ply based business:** The raw material acquired for the forests is used for production of Joinery (ie joining together pieces of wood, to produce more complex items) and allied products like ply wood etc. Such businesses employ large number of people. Apart from this, such forest products also fulfill needs such as housing and shelter etc.

**Pharmaceuticals:** The forests are a source of a large number of medicinal plants. These plants are used in production of medicines for various medical problems.

**Willow:** Willow is used for bat manufacturing. In Kashmir, Sangam area is one of the famous area considered for bat manufacturing.

**1.3 Rearing Livestock** involves the rearing of domesticated animals, birds etc such as sheep, chicken used for personal or commercial purposes. Nomadic Gujjars and Bakerwals depend to a large extent on livestock rearing. This livestock contributes to economy in many ways which include:

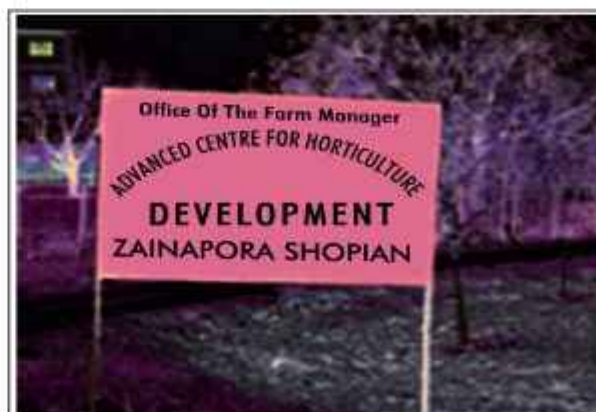
**Milk Production:** Milk production provides livelihood to a number of persons. Milk and dairy related business has expanded considerably. The dairy and milk products related business in

Kashmir which are sold under the brand names like Khyber, Snow Cap, Zam Zam etc provide employment and livelihood to a large number of people. Pulwama District in Kashmir has a dynamic dairy sector.

**Wool:** Different kinds of wool is produced in our erstwhile State. The Pashmina wool is considered precious and is used in producing shawls. Numerous Artisans earn livelihood by spinning wool and further by producing these shawls which fetch them good money.

**1.4 Horticulture:** Horticulture refers to that branch of agriculture that deals with the art, science, technology, and business of growing fruit. It includes the cultivation of medicinal plants, fruits. Most fruits grown in our UT are apple, pear, apricot etc. On account of the contribution of Horticulture to the UT economy and its enormous potential, the Government is keen to further enhance horticulture in the UT Government has established many farm centres for the help of the fruit growers for technical guidance, suggestions etc.

**Horticulture Industry:** Horticulture industry occupies a significant presence in the UT of Jammu and Kashmir. Fruits grown are processed to produce products like jams and packed fruit juice. Such products are widely consumed and have a large market. Apples grown in Kashmir are nationally famous. Besides, the government has established HPMC (Horticulture Produce and Marketing Corporation) for giving an additional boost to the UT 's horticultural products.





- ✓ Horticulture contributes 7-8% to UT GDP (Annual Income Rs 5000 Crores)
- ✓ 282 private registered nurseries produce 25 lac plants and generates income of approximately Rs 9 crores. Over five lac fruit plants are supplied to other states annually.
- ✓ 7 lac families / 33 lac persons are involved in this trade. Each hectare of orchard generates 400 man-days per year

Source [hortikashmir.gov.in](http://hortikashmir.gov.in)

**1.5 Floriculture:** Growing and raising of seeds / flowers is referred to as Floriculture. The biggest boost to this sector has been from tulips in Kashmir. The tulip garden in Srinagar has been a big attraction for tourists in Kashmir. The floriculture department generates a good amount of income as tickets are essential for entry to the famous garden. The floriculture department generated income of about Rs 1350 lacs in year 2011-12



#### 1.6. Sericulture:

Sericulture is the sector that deals with rearing of silkworms and silk products. The sericulture department of our UT runs different schemes to expand the sericulture sector. The department aims to make this sector as an employment generator. The department has been able to generate income of Rs 2226 (in Lacs) in year 2013-14. The different activities being carried by the department include training of farmers, organizing demonstrations, exposure visits, capacity building of farmers etc.

#### 1.7. Fisheries:

Fisheries visits, capacity building of farmers etc. raise fish through fish farming and aquaculture. Trout fish is widely consumed across the UT. As part of its economic strategy, the government of Jammu and Kashmir has encouraged the youth to establish fish farms. With the help of this many people earn



earn additional income. The fisheries department has network of 42 trout fish rearing centres and some of the famous ones being at Kokernag and Laribal in Kashmir.

**1.8. Minerals:** The following minerals resources are found in our UT:

**A Limestone:** Lime stone is major ingredient for cement production. In cement production limestone is of 75% proportion approximately. Limestone is found in many areas of Kashmir particularly in Pantha Chowk-Zewan-Khunmoh-Khrew-Awantipora belt.

**B Silica:** Silica is the second important ingredient of the cement. The proportion of silica in cement manufacturing is approximately 20%. Silica sand is found in Anantnag, Doda and Udhampur district.

**C Gypsum:** Gypsum is also used in the cement production. The proportion of gypsum and iron in cement production is approximately 5%. Gypsums found in Bunyas in Baramulla, Assar area Doda district and in the areas of Ramban

**D Coal:** Coal is important fuel used for heating purposes. Coal is found in the Kalakote area of district Rajouri.

**E Sapphire:** Sapphire is an important stone extracted at Paddar area of Kishtwar district in Jammu.

Extraction of sapphire from the mines in Paddar began in 1885 and these stones acquired a legendary status in the world of jewellery. Sapphire at Paddar is famous all over the world for its unique peacock-blue color. Its color holds up in all kinds of light, which is described as a magical property as compared to other sapphires such as Burmese stones which lose their rich color in the evening light. The stone has a magical "velvety" effect, exuding a soft, yet strong colour. The price of these pure sapphires easily crosses USD 100,000 a carat making them the most expensive in their category.

**Source: Greater Kashmir Dated 01/09/2015**

Serial No	Area	Mineral Extracted / investigation
01	Khonmoh Khrew Srinagar	Lime Stone
02	Kupwara	Marble
03	Kalakote, Jammu	Coal
04	Paddar, Kishtwar	Sapphire
05	Daragutliyan, Baramulla	Gypsum
06	Saderkote, Bandipora	Lime Stone
07	Verinag, Anantnag	Lime Stone
08	Nich Hama, Handwara	Lignite
09	Panthal, Ramban	Magnesite
10	U.T of Ladakh	Gold, Uranium, Sulphur Unexplored



The extraction of above minerals is important because:

- (i) It helps the UT government by earning considerable amount in form of Royalty by leasing extraction sites to private entrepreneurs,
- (ii) The private entrepreneurs engaged in mineral extraction are able to create employment for themselves as well as for others as mining activities generate employment for a large number of people.

**Exercise: 2** Teacher is expected to identify the local areas in the map and make the students understand the various sources of earnings available in the local area.

- 2. The Secondary sector is that sector which deals with the processing of raw-materials acquired from primary sector into processed or semi-processed goods.

**ECONOMIC IMPORTANCE OF SECONDARY SECTOR**

The economic importance of the secondary sector can be understood from the fact that it helps in converting raw material into finished goods. This conversion of raw material into finished good is an industry which absorbs very large number of the population for employment and earning livelihood.

The secondary sector involves manufacturing and construction.

**Manufacturing:** Manufacturing industry includes activity of converting raw material into finished goods. For example, if wood is taken as raw-material then processing of wood to convert it into chair or table would be termed as manufacturing. Handicrafts has been one of the important livelihood earning industry in our UT . The important products of the handicrafts are discussed as below: Carpets: The practice of carpet weaving in Kashmir is historically linked to Persia and it is widely held

that Sultan Zainul Abideen brought carpet weavers from Persia and Central Asia to train local people and soon after the carpet weaving industry in Kashmir attained proficiency and perfection. A lot of people are associated with carpet weaving and earn livelihood out of this activity.



Anibal Design Carpet

**Shawls:** A Shawl is a special cloth used to cover the body and to add to the overall elegance of garments already being worn. The Kashmiri shawl is prepared from three kinds of fabrics that are (i) Shah Tus (ii) Pashmina (iii) Raffal.

(i) Shah Tus shawls are considered to be the costliest among all the shawls and it is said that the entire shawl can be passed through a ring. Thus it is also known as the ring shawl. Shah Tus fabric comes from a rare Tibetan Antelope living at a height of 14000 ft. These shawls are prepared on Looms and are needle embroidered.

(ii)Pashmina is a fine type of Kashmiri wool. The textiles made from it were first woven in Kashmir. The name comes from Persian pashmina, meaning "made from wool and literally translates to" "Soft Gold" in Kashmir.



Kani Shawl in Almond Motif



(iii) Raffal is spun out of marino wool tops and is a popular type of shawl.

**Wood Carving:** Wood carving refers to creating designs on wood. Walnut wood is especially used for the purpose. The wood carved products may be Sofas, Chairs, Tables, Almirahs etc. The designs used to carve may be flowers, fruits, chinar leaves etc.



Wag'd carved Saa

**Ladakhi Carpets:** The people of Ladakh also weave carpets but mainly for personal use. These carpets are popularly known as Khalidan and Tsukdan.

**Basohli Paintings:** The lakeside town of Basohli on the banks of the Ranjit Sagar Lake and located about 75 kms from the District Head Quarters of Kathua, Basohli, is known for its miniature paintings. The themes of these miniatures are taken from sources of literature like Rasamanjari, Gita Govinda and Gagama la. The sloping forehead and large expressive eyes shaped like petals, use of primary colours like red, blue, yellow and occasional use of fragments of beetle's wings to represent jewellery are special characteristics of these paintings. Basohli town today has become famous for this imaginative artistic style which is now known as Basohli Paintings.



Basohli Painting



**Chenab Textile Mills:** While the UT, has a strong tradition of manufacturing, the advent of modern industry is a relative recent phenomenon. One of the largest units that was set up in the 1970s was Chenab Textile Mills in Kathua District by the K.K. Birla Group. Today, this factory which manufactures cotton yarn and man-made fibre yarn with the help of over 170,000 spindles is the largest factory of the Sulej Textiles and Industries Ltd.

Besides handicrafts, handlooms etc the young entrepreneurs of the UT are increasingly entering new and modern industries like packaged-drinking water plants, pharmaceuticals, cement etc.

**Exercise 3: Students should be asked to identify local secondary sector activities.**

**Power Generation:**

The Jammu and Kashmir has the potential for the generation / production of 20,000 MW of power / electricity. The Jammu and Kashmir Power Development Corporation executes and maintains hydro power projects. The corporation has 20 hydro electric projects in different parts of Jammu and Kashmir. Some of the important power projects of the UT are the projects in Baglihar, Uri, Chennani, Dul Hasti, Salal etc.

How does the UT Government promote industry?

The UT government reserves some areas as Industrial areas / estates to providing space to the entrepreneurs for setting up their factories. This land is provided at concessional rates to enable businessmen to set up their units more easily.



Some of these industrial estates are:

- (i) Bagi Ali Mardan Khan, Rangreth, Khonmoh, Baramulla, Anantnag in Kashmir division.
- (ii) Bari Brahmana, Samba and Kathua in Jammu division.
- (iii) Leh, Khurbatangh in U.T. of Ladakh.

Besides above locations, government has made efforts to see that every district has such industrial estate.



Industrial Estate

**Products produced in different industrial estates and the companies:**

Industrial Estate	Product Produced
Khunmoh	Packaged drinking water, Agro products
Rangreth	Electric Blankets, Warehousing
Bagi Ali Mardan Khan Bari Brahmana	Jonery Flex (Packaging), (Pharmaceuticals)
Samba	Berger Paints (Paints), Reckitt Benkiser
Kathua	(Mosquito Coils), Consumables like biscuits, Sanitary items, Textiles Leh.

The information provided in the box is only indicative and many other products are produced at different industrial estates across Jammu and Kashmir.

3. The tertiary sector is the sector which provides support to the primary and secondary sector. Services are those outcomes of economic processes which cannot be touched physically but can be felt. Thus it is a non-material equivalent of a good. Examples of services include movies, TV programmes, services rendered by a barber etc.

**ECONOMIC IMPORTANCE OF TERTIARY SECTOR:**

As economies develop, the tertiary sector becomes increasingly important as with rising incomes, people avail more and more services. Secondly, a vibrant service sector is important for the growth of the other sectors as well. Credit, Loans and other forms of finance which constitute services are vital for the growth for businesses. Technology firms can help manufacturing to become more productive.

The tertiary sector (which is also called service sector) involves banking, insurance, warehousing, post and telegraph, hospitality and tourism, health etc.

**Tourism as a Service Sector in Jammu and Kashmir:**

Tourism industry has always proved to be a huge source of income and employment to the residents of the UT . Tourism is spread out in all parts of the UT in different forms whether it is destination tourism where tourists are attracted to the natural beauty of the UT or pilgrimage tourism where tourists visit holy places like temples or shrines. Jammu And Kashmir UT attracts tourists throughout the year in summer as well as in winter.

World famous resorts in Kashmir like Dal Lake, Mughal Gardens, Verinag, Pahalgam, Gulmarg, Gulmarg in Kashmir, Sky view ropeway in Patnitop and Bahu ropeway Station in Jammu have been an additional attraction to the tourists Sonmarg have proved to be everlasting attraction for tourists as well as locals. Gondola ride at Gulmarg has been an additional attraction to the tourists.

In addition, the development of tourist destinations like Aharbal, Doodhpathri have also attracted the interest of tourists. The Water falls at Aharbal attracts tourists in large numbers.





A large number of people earn their livelihood at tourist destinations by providing different services in these places. The Government too has tried to raise its revenues by charging entry fees for entry into some of the above mentioned areas. Apart from places of great natural beauty, Kashmir also has some shrines like the Hazratbal shrine and the Amarnath cave which attracts pilgrims from all over the country.

In contrast to Kashmir, pilgrimage tourism is the main form of tourism that attracts tourists to Jammu. The shrine of Shree Mata Vaishno Devi at Katra in Reasi District attracts over ten million pilgrims in a single year. The entire pilgrims at this shrine is overseen by the Shree Mata Vaishno Devi Shrine Board. Apart from Katra, the other shrines that are now attracting pilgrim in ever larger numbers are the shrines at Shiv Khori in Reasi District, Shandara Sharief in Rajouri District, Budha Amarnath in Poonch District, Shudh Mahadev in Udhampur District, Kallash Yatra in Doda District and Machail Yatra in Kishtwar District. The government has recently taken initiatives to attract tourists to places of natural beauty like Bhaderwah in Doda District and Bani in Kathua District. Patnitop on the Jammu-Srinagar Highway and Sanasar which is just off this highway remain popular destinations for residents of Jammu. Besides, Mansar and Surinsar lakes in Jammu division also attracts a large number of tourists.



**Fig. Trikuta Hills**

U.T. of Ladakh, which comprises of two Districts Leh and Kargil respectively, is also a major tourist destination. Tourists visit Ladakh not only for its natural beauty, but also to visit religious places. Pangong Lake in Ladakh is one of the important

tourist destinations. Archaeological and monumental destinations in Ladakh include Sculpture at Drass, the Lamayuru Monastery, the Hemis Monastery, Leh palace etc. These sites have been declared as sites of national importance. Apart from these, many other sites of Ladakh have been brought under global tourist destination map.



**Fig. Kargil**

It is expected that with further declarations of monuments as being of national importance, Ladakh will become more prominent on the global tourist map. This will increase tourist inflows and hence lead to more revenue generation. The greater tourist inflow is expected to generate more employment and livelihood earning opportunities at the local level. The government is also expected to benefit through increased collections of taxes and tolls.

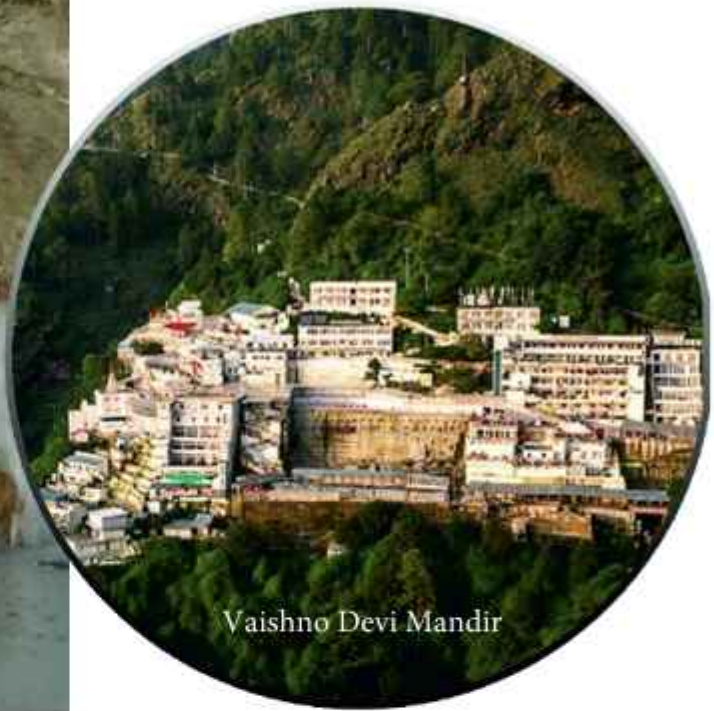
**Exercise 4:** Teacher is expected to involve the students in identification of nearby tourist destinations. Students should be asked to identify the locals involved in trade activities there. Suggestions for improvement should also be sought from them.

Tourism is expected to generate employment in the UT as well as increase government revenue. But tourism is not the only service sector activity that exists in the UT. The banking sector in the UT that provides financial services to business in the form of credit/loans and takes care of the savings of customers has also grown rapidly in the UT. The lead role in this regard has been taken up by the Jammu and Kashmir Bank which was set up in 1938 and whose aim is to bring about economic





Amarnath Temple



Vaishno Devi Mandir



Pangong Lake



Hemis Gonpa Monastery



Mughal Garden



transformation and growth in the UT through its activities. But other banks both government owned as well as private banks are also rapidly expanding their business activities in the UT. Banking as a service is very important to all the sectors as business run largely on credit which banks provide and a vibrant banking sector is necessary for economic growth.

Other services include distribution services like wholesale and retail distribution. Warehousing is an important component of whole services and under this sector, FIL Industries, a local business unit, has established Cold Storage plant in Industrial Estate, Rangreth. Such storage plant caters to the needs of different local business by making available the storage of perishable items. This is vitally important for agriculture where a large proportion of produce perishes causing great economic loss. This is why the government too is also trying to establish cold-storage plants across state.

The service sector of this UT also employs a large number of people.

#### **HURDLES IN ECONOMIC DEVELOPMENT:**

The erstwhile State of Jammu and Kashmir is considered economically backward. many factors can be held responsible for the slow growth of economy. Some of these are:

**Poor Road connectivity:** The Chenab valley, Kashmir and Ladakh UT have to bear the brunt of severe communication

problems. The hilly terrain as well as climatic conditions such as snow serve to make the construction of roads difficult and expensive. Even if roads are constructed, connectivity to these regions gets disrupted especially in winter due to heavy snow fall. In addition, the landslides in the rainy season disrupts road traffic and sometimes the roads face total erosion. Therefore, the UT government has to spend great sum of money to clear and re-build the roads.

**Lack of Awareness about various Kinds of Employment Opportunities:** There is a marked preference of the people for government jobs. Such dependence restricts the involvement of people towards business. This kind of employment does not promote economic growth. Thus there is need to attract people towards the private sector or self-employment and to encourage them to set up business units so that they can employ others.

**Security Problems:** An economy functions best when there is peace and tranquility in the region. The absence of peace and security creates a situation of fear and uncertainty where people (consumers and businessmen alike) are not able to take proper decisions especially when it comes to income generating activities. In such conditions, investment in such regions comes to halt. Business will either close or move to other states. Thus the economy either stagnates or contracts (ie becomes smaller). Thus unemployment rises, income falls giving rise to hardships.

#### **Fill in the Blanks**

- (i) Two division of our UT are \_\_\_\_\_ and \_\_\_\_\_.
- (ii) Floriculture deals with \_\_\_\_\_.
- (iii) Kashmiri \_\_\_\_\_ fish is famous for its taste and quality.
- (iv) Kalakote is famous for \_\_\_\_\_ mines.
- (v) Hazartbal shrines situated at \_\_\_\_\_.
- (vi) Tourism raises \_\_\_\_\_ of the State.
- (vii) Paper Machines is produced in \_\_\_\_\_ region of Jammu and Kashmir.



**Short Answers**

1. Name Major Forest based raw material supplied from the UT of Jammu and Kashmir.
2. Write about qualities of Major fruits produced in Jammu and Kashmir.
3. Write a short note on handicraft and handloom industry in Jammu and Kashmir.
4. Identify five each Non- metallic and Metallic mineral resources found in Jammu and Kashmir.
5. Discuss tourism, as a service sector in the U.T. of J&K.

**Long Answers**

1. Identify major agriculture crop grown in Jammu and Kashmir. Distribution these crops accordingly to Kharif and Rabi seasons?
2. Discuss the role of service sector in the economic development of the U.T. of Jammu and Kashmir.
3. Explain the various hurdles in economic development of Jammu and Kashmir.





## UNIT- II

### Employment Generation

- ☛ Potential and Scope for Employment Generation
- ☛ Special Industry Initiative (Sii J&K)
- ☛ Towards Employment Initiatives
- ☛ Sectoral Initiatives taken by the Government for Employment



**Employment Generation:**

The economy of Jammu & Kashmir has suffered from disturbed conditions prevailing in the UT for almost two decades. It would, therefore, be necessary to put the economy back on the rails to enable the average person to get employment opportunities. This would require giving fillip to the economic activities that have traditionally

been the mainstay of the UT's economy and continue to hold significant potential for growth and employment. Such activities include Agriculture (including Horticulture), Food Processing, Handicrafts and Handlooms, Tourism etc. It would be equally necessary to ensure diversification of the UT economy, especially expanding the industrial base by promoting private capital inflows into the UT through various incentives and concessions in the initial stage. The special industrial package announced for Jammu and Kashmir has been a step in the right direction.

The government is taking all possible steps and making all possible efforts in providing gainful employment to the youth of the UT, but it may not be possible for the government to provide government jobs to all. Under these circumstances possibilities have to be explored



for absorbing the youth by way of creating work opportunities in the private sector as well. In this direction the following sectors of economy have been identified for generation of gainful employment opportunities in the UT on sustainable basis:-

- I. Agriculture (including Horticulture, Floriculture, Food Processing).
- II. Animal Husbandry.
- III. Handlooms and Handicrafts.
- IV. Industries (including Small Scale industries and Rural industries).
- V. Education & Health.
- VI. Large infrastructure projects (Roads & Railways).
- VII. Information Technology & Telecommunication.
- VIII. Construction Sector.
- IX. Tourism & Travels.

While as tourism both domestic as well as international may provide possibilities for employment generation in the hotels, catering and entertainment and travel sectors as well as a market for handlooms and handicrafts, there are equal chances of gainful self employment in the other above defined sectors as well.

**Potential and Scope for Employment Generation in the UT**

While preparing any plan for sustainable employment generation, it has to be kept in view that the prospects of any large scale expansion in the public sector jobs are not very bright. Even if steps are taken to fill all the gaps in manpower required to deliver public services in crucial areas such as health and education, the contribution of government jobs at the margin would not be more than 17% as per the calculations worked out by the Task Force constituted by the Ministry of Home



Affairs, Government of India, through Department of Jammu and Kashmir Home Affairs in the year 2003 for creating one lakh employment and self employment opportunities in the erstwhile UT of J& K. Taken together with the jobs in other formal establishments, the share of regular salaried jobs in the employment generation programme is not expected to be substantial. Therefore, other avenues would have to be explored for providing sustainable employment to the people of the erstwhile UT particularly through the following two routes:-

- I. Accelerating the rate of economic growth of the UT.
- II. More effective implementation of employment-oriented schemes and programs.

Extending support to entrepreneurs to set up small and medium enterprises for self employment would appear to be the most effective and durable way of doing this. A large number of workers in Jammu and Kashmir have traditionally been self-employed in activities such as Handlooms and Handicrafts, Tourism, Horticulture, Food Processing etc. The disturbed conditions prevailing in the UT have affected them adversely to varying degree. While some of the workers have suffered loss of employment, majority are working at very low levels of income and productivity. Also, in many of the identical areas, especially horticulture and food processing, a large potential for growth lies untapped waiting to be exploited.

Different sectors and sub-sectors of the State's economy would require different kinds of interventions for revival/growth depending upon the nature of the activity, the impediments to growth and the institutions that are in place

to encourage or promote growth. Specific interventions through Government schemes and the special employment programmes like PMRY, REGP, SGSY, NREGS and Jammu and Kashmir Self Employment Scheme would be important for giving better employment orientation to growth of the UT economy.

In the 11th Five Year Plan (2007 - 2012) for erstwhile Jammu and Kashmir of the order of Rs. 25834.00 crore among other things is focused to boost, in particular, labour intensive manufacturing sectors like food processing, leather products, footwear and textiles, and service sectors such as tourism and construction. Construction sector would generate substantial additional employment. The Task Force constituted by the Central Government on creation of employment and self employment opportunities during the year 2003 has identified/projected employment opportunities in the following three categories to the extent of percentage as indicated against each:-

<b>A Self-employment</b>	<b>38.17%</b>
<b>B Wage-employment</b>	<b>45.18 %</b>
<b>C Regular salaried employment</b>	<b>16.65 %</b>

#### SPECIAL INDUSTRY INITIATIVE (SII J&K)

Jammu and Kashmir has a large talent pool of youth who are well educated but are unable to find employment due to lack of soft skills or lack of practical/hands-on training. To engage the youth, one initiative could be to identify 10-20 companies across industry sectors to partner with an educational institution and run special training programmes to enhance employability of 8000 youth per annum in Jammu and Kashmir over a five year period. This would help 40,000 youth in Jammu and



Kashmir becoming employable in various sectors across India. This could be operationalised through a scheme to be executed in the PPP mode with 50:50 cost-sharing between the government and the private sector.

**PPP is Public Private Partnership in which private enterprise help the government to undertake development project by sharing profits.** The Govt of J&K has been encouraging PPP investment in Tourism sector which involve investment infrastructure used by tourists and earning revenue through levy of used by tourists and earning of PPP based investment is the Sky view Ropeway at Patnitop in Udhampur district of J&K.

#### **TOWARDS EMPLOYMENT INITIATIVES:**

The government is taking all possible steps and making all possible efforts in providing gainful employment to the youth of the UT. Under all these circumstances, possibilities have to be explored for absorbing the youth by way of creating self employment and work opportunities in the private sector as well. The following measures have been taken by the government:

##### **1. Self Employment:**

A person is said to be self-employed when he or she earns his or her income directly from customers, clients or other organizations. A self-employed person is not the employee of anyone but works for himself or herself. A self-employed person owns the assets of his or her own business. It is argued by many that if a person contributes his own labour, both physical and mental to his own enterprise or business rather than work for someone else, then being self-employed is likely to be better for him.

For a longtime, Governments all over have been trying to popularize the idea of people being self-employed instead of trying to get a job (preferably government).

Governments have tried to persuade people that it is better to start earning income by initiating a business. Many schemes aimed at encouraging this trend have been launched and are being run by the government to make self-

employment more widespread. Some of these schemes are:

##### **1. Jammu and Kashmir UT Self Employment Scheme:**

Under this scheme a person is provided financial help for starting a business. Bank loans, margin money, capital subsidies and interest subsidies are some features of this scheme. The Employment Department runs this scheme at the district level.

##### **2. Financing Schemes for Economic**

**Upliftment of Weaker Sections:** The scheme is run by Scheduled Castes / Scheduled Tribes / Backward Classes Development Corporation. The corporation is engaged in providing different subsidies to the notified classes as mentioned above and helps people belonging to these communities to set up business units.

##### **3. Work shed cum Housing for Handicrafts**

**Artisans:** The scheme is designed to improve the working conditions of the artisans. Improvement of quality and productivity is also part of the scheme. Construction of work sheds and housing facilities for artisans is covered in the scheme.

##### **4. Prime Ministers Employment Generation**

**Programme:** This scheme is available for establishment of new projects. The scheme has been launched in urban as well as in rural areas for generating employment by setting up units in the manufacturing as well as service sectors.

##### **J&K Rural Employment Generation Programme (JKREGP):**

To harness and divert the energy and enthusiasm of the Youth of the U.T. of J&K, a new credit linked subsidy Programme namely JKREGP has been launched in the year 2020 under this programme, different schemes have been introduced for various industrial groups falling under its purview. These schemes envisage self-employment opportunities to the unemployed educated youth of J&K.



## II. Skill empowerment:

Under this scheme the government is trying to provide necessary skills to the youth for making them employable and inculcating in them market related and required skills. These schemes are job-oriented with emphasis on placement. Udaan and Himaayat are the few of schemes in operation in the UT.

Besides above the government is running many employment or skill related schemes across UT in relevant departments.

### Sectoral Initiatives Taken by the Government for Employment:

- I. The highly labour intensive livestock sector with its capacity to cater to the poor and absorb large number of skilled and unskilled workers is important to the Jammu and Kashmir economy. With productivity increase, this activity has the potential to augment agricultural incomes. Increased public investment in the poultry sector, emphasis on tackling disease and infertility in dairy, improvised agronomic practices for quality fodder production in specific areas which will increase the employment potential of the sector and attract private investments.
- II. The tourism sector with its potential in employing people across the skill spectrum and positive externalities for other sectors like handicrafts, handlooms and transport occupies an important place in the development and employment strategy of Jammu and Kashmir. To start with, the UT must put in place a PPP policy that will address land related concerns in a practical manner for the tourism sector especially in creating hotels and resorts. The other initiatives are regular flights connecting different regions in the UT, developing tourist circuits, training youth in the hospitality and adventure tourism and creating an integrated online tourism portal in PPP mode.
- III. The Handicraft sector in Jammu and Kashmir occupies an important place with a fine tradition of craftsman, employing 4-5 lakh Artisans, 179 major craft clusters and revenue generation of Rs. 1000 crore plus. Highly labour intensive, the sector contributes significantly to employment generation but has underperformed due to lack of a Kashmir brand, poor quality control, obsolete designs, exploitative middlemen and competition from machine-made fabrics. Both the central and UT governments have taken number of initiatives to address these growth bottlenecks like establishing a carpet cluster in Srinagar area, obtaining a Geographical indication for Sozni embroidery, Pashmina and Kani shawls and starting a skill development scheme for craftsmen.
- IV. The role of Micro, Small and Medium Enterprises (MSME) in socio-economic development and employment generation is well established. The sector has not done well in the UT due to a number of reasons including inadequate local demand, poor credit flows and distance from markets. Sharp focus on improving access to finance by reviving the Jammu and Kashmir Development Financial Corporation (JKDFC) increasing the scope of Prime Minister's Employment Guarantee Programme (PMEGP) and purchase preferences in government procurement will help the revival of this sector in Jammu and Kashmir. As peace returns to the UT, Private investments and large industry will also come back bringing sustainable growth and jobs.



V. IT/BPO sector has showcased India's talent emerging as an important foreign exchange earner, but in Jammu and Kashmir it is still in the process of spreading its wings. The sector has attracted a number of young entrepreneurs but the growth in the sector has been constrained by lack of connectivity, reluctance of talent from the rest of the country to work in the UT and poor network of educational institutions in IT. The long term strategy for success in the sector would require peace, connectivity, vibrant hospitality sector and skilled manpower. An immediate 'quick-win' strategy would be to connect all the districts on a priority basis, develop an operational SWAN network, simplify procedures to encourage private investments and create infrastructure in terms of IT/ BP() Parks.

**Exercise /Project Activity**

1. Paste on your scrap book picture of snow bound huts and trees.
2. Paste on your scrap book pictures Hemis Gumpas, Dragon Dance of Ladakh, Tulip Flowers, Trout Fish, Verinag Spring, Cable car in Gulmarg, Hazratbal Shrine and Dal Lake.
3. Paste on your scrap book pictures building under construction , BRO repairing roads, Snow cutting machine clearing snow from the road in Jammu and Kashmir Highway.

**Fill in the Blanks**

- i. Hari Parbat is situated in .....
- ii. Kukernag is famous for.....

- Dogra Art Museum is famous for.....
- iii. The riverJhelum is famous for .....
  - iv. Full form of PPP is .....
  - v. Paper machie handicraft is produced in.....
  - vi. Kashmir carpets are exported to foreign countries in.....
  - vii. Hemis Gum pas are situated at .....

**Short Answers .**

1. Identify places of religious pilgrimage in Jammu and Kashmir.
2. What do you mean by PPP.
3. What is the role of Handicraft sector in employment generation in Jammu and Kashmir?
4. Write a brief note on Micro Small and Medium Scale Industries in employment generation.
5. How employment potential in Jammu and Kashmir can be increased?

**Long Answers**

1. Discuss the role of tourism in generating employment inJammu and Kashmir.
2. Write down sectoral initiatives by the government to generate employment in Jammu and Kashmir.





## UNIT-III

### Financial Literacy (Stock Market Operations)

- ❖ Share
- ❖ Stock Exchange
- ❖ SEB I



### Stock Market Operations.

Dear Students let's now move ahead to discuss about the financial instruments used in financial markets. The important financial instruments which we will discuss here are shares and Debentures:

#### SHARES

The capital of a company is divided into small units called "shares". The person who holds the shares is known as shareholder. Share is a unit into which the whole capital of a company is divided. Shares are unit of ownership interest in a joint stock company or financial asset that provide for an equal distribution of profit if declared in annual general meeting in the form of dividend to the shareholder. On the other hand debenture is a debt security under which the issuer owes the debenture holder a debt and is obliged to pay them pre determined rate of interest.

Yes now let's discuss the operations of stock market:

#### STOCK EXCHANGE:

Stock Exchange is a market where financial instruments are traded. Stock exchange provides trading (buying and selling) facilities to investors through stock brokers. Securities traded in stock exchange include:

Shares issued by companies, debentures, financial derivatives, bonds etc. Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) are two main stock exchanges in India.

BSE sensitive index called SENSEX is a free float market weighted stock market index of 30 well established and financially sound companies listed in Bombay Stock Exchange. Whereas, NIFTY is an index in India consisting of 50 stocks representing 23 industry sectors. The constituents of index changes periodically depending on liquidity, availability of floating stock, turnover, volume of transactions.

Students you are advised to tune All India Radio tonight at 9 PM and listen to news regarding SENSEX and NIFTY.

Stock exchange plays a vital role by providing the backbone to nation's economic infrastructure. Stock exchange help companies raise money to expand. They also provide individuals the platform to invest and a facility of liquidity.

The operations of stock exchange In India reflected weaknesses like procedural delays, lack of transparency, vulnerability to price rigging and insider trading.

To counter these shortcomings and different



These shortcomings and deficiencies and to regulate capital markets the government of India set up Securities Exchange Board of India popularly called SEBI in 1988. Initially, SEBI was set up as non-statutory status. SEBI is authorized to formulate guidelines and regulate effective stock market operations. SEBI is working for transparency in capital market and safeguard the genuine interests of investing public.

SEBI has developed a centralized web based system for logging and tracking investor complaints known as SCORES (SEBI complaint redress system). Anyone who has a grievance can file a complaint using SCORE. The complaint is redressed within thirty days.

### Fill in the blanks:

- i) The person who holds the shares is known as.....
- ii) Nifty is an index in India consisting of ..... stocks.
- iii) The two main stock exchanges in India are ..... and .....
- iv) Scores stand for .....
- v) The person who holds the debenture is known as .....

### Short Answer

- 1) Differentiate between shares and debentures.
- 2) Write a short note on stock exchange.
- 3) What is SEBI? Explain the role of SEBI in stock exchange of India?
- 4) Write a short note on SENSEX.





## **DISASTER MANAGEMENT & COMMUNITY PARTICIPATION**

We cannot stop natural disasters but we can arm ourselves with knowledge:  
so many lives wouldn't have to be lost if there was enough disaster  
preparedness

**Petra Nemcova**







## PROTECTING OURSELVES FROM DISASTERS

In class IX, we learnt about various natural and anthropogenic disasters, their impacts and mitigation measures. Here we shall discuss how to prepare for a disaster that may hit at any time. We shall also understand how to protect ourselves and others during a disaster. A basic knowledge about the skills to survive in a disaster and construction of earthquake resistant buildings shall be imparted in this chapter.



Damage due to earthquake

### Survival Skills

Since ancient times, mankind has been coping with disasters that cause loss of life, damage to property and livelihood. Jammu and Kashmir UT is prone to various disasters and has high to very high risk of earthquakes, landslides and fatal road traffic accidents. Earthquakes are considered to be one of the most dangerous and destructive natural hazards. The impact of earthquakes is sudden and without any warning and it creates such a disastrous situation that the public has always been the first responder in both rescue and first aid. This

chapter aims at understanding the survival skills like Search and Rescue as well as First Aid by our school children.

### A. Search and Rescue

The first and foremost life saving procedure is search as well as rescue of the victims from the site of disaster without wasting the time. Moreover the search and rescue workers must take all precautions to shift victims away from the hostile environment without causing further damage to their health and safety.

Search and rescue is a well planned activity performed by either an individual or a group of specially trained professionals in search and rescue of casualties from adverse conditions to safety. This event is organized in close cooperation amongst different stakeholders like local public, trained volunteers and the Administration.

### Local Community as Rescuers

Communities habituating in highly vulnerable areas manage quite well with disasters on the basis of their acumen, knowledge, local resources and certain skills and manage search and rescue quite well.

### Trained and Skilled Rescuers

Many a times the disaster is beyond the capacity of the local community and a well planned search and rescue by professionals with the help of local administration is required.

### Team composition

Trained individuals, both male and female,





*Self-help during disasters*



having good physical status, emotionally balanced and willing to work in an emergency situation even at a very short notice could form a good rescue team. The team leader who is a good organizer, morale booster and professional decision maker can lead the rescue operation. The leader is also responsible for the safety of whole team.

#### **Objectives of Search and Rescue Team**

- Search the victims in debris and timely rescue to safety
- To provide first aid to victims and transport them to hospitals on priority
- basis depending upon the critical UT of the victims.
- Help administration in recover, handover and dispose off dead bodies as well as disposal of dead animals to prevent spread of diseases.
- To take necessary steps in cordoning off the damaged and collapsing buildings.
- Train local volunteers in assisting search and rescue operation besides creating awareness on using locally available material for better use in future.





**Jobs of Rescue Team** {Leader and Team members}

### Leader

- To assess the disaster area and also collect information on extent of damage, likely loss of life and property
- To find the safest approach to the disaster area. Local inhabitants can provide the required information.
- To take all precautions to safeguard the search and rescue team so that no member of the team gets injured during the search and rescue operation.
- To issue time to time instructions
- depending on the situation.

### Team members

- To stay cool and calm and be optimistic
- To obey the commands of the team leader.  
Wear all safety equipment including helmet.

- Always work in pairs and also support and complement each other.
- Keep calling
- Listen to all possible sounds like crying, alarms for help etc.
- Not to touch or pull / push blocked doors, damaged or projected planks.
- Treat all wires and cables as live wires.
- Do not ignite fire, it can spread and injure rescue team.
- Be gentle and careful in all your actions as well as movements.
- Take maximum safety while removing debris from the vicinity of the victim.
- After reaching to victim quickly assess the condition, immediately provide first aid, facilitate breathing if victim is not breathing.
- After search and rescue of the victims necessary first aid is provided depending upon the condition of the victim. The victim needs to be transported first to safe place by improvising locally available material.
- Stretchers made by using bamboo sticks
- Ladder/ rope stretchers
- Bamboo sticks and blanket stretchers



## A. Equipment for Rescuer

### 1. Equipment for Personal Safety of Rescuer

- Helmet
- Life jacket
- Gumboots
- Torch
- Whistle

### 2. Equipment for Safety of victims

- Ladders
- Ropes
- Pulley
- Small cutting tools
- Hammer
- Stretchers
- Bamboo sticks
- Barrels
- Air filled tubes

### 3. Ultra Modern Search Equipment

- Infrared cameras
- Acoustic devices
- Bio radars
- Life locators

First aid is defined as "provision of initial care for the illness or injured not with an idea of cure but to prevent further harm to the victim till medical help is received".

#### First Aid Kit:

A first aid kit is a collection of supplies and equipment that is used to give medical treatment. Following are the essential contents of a basic first aid kit.

- Small, medium and large sterile gauze dressings
- Triangular bandages
- Crepe rolled bandages
- Safety pins
- Disposable sterile gloves
- Antiseptic ointments
- Scissors
- Cream or spray to relieve insect bites & stings
- Painkillers such as paracetamol & aspirin

## First Aid Objectives

- To save life by maintaining vital functions ABC (Airway, Breathing and Circulation)
- To prevent victims condition from becoming bad to worse by practicing ABC of Basic Life Support [BSL] .
- To gain time to make victim reach hospital.
- To reassure morale support to victims.

### Action Plan of First Aid Provider

- First aid providers must follow DRABC (Danger, response, airway, breathing, circulation)

D- Check for Danger around victim and care provider

R- Check for response of victim

Is victim conscious?

Is victim unconscious?

A. Check whether the airways of victims are clear.

B. Check whether the victim is breathing comfortably.

C. Check whether the victim's blood circulation is normal.

### Fainting and loosing Conscience

- Unconsciousness or fainting is a UT of human body as a result of interference with the functioning of brain which could lead to airway obstruction, loss of breathing and





malfunctioning of heart. This UT can lead to death of victim if no immediate first aid is provided. There are different causes of unconsciousness and the most common being is sudden shocking news, fall from height, epilepsy, carbon monoxide or drug poisoning and diseases like high blood pressure, diabetes, low blood pressure, UT of shock etc.

### Dealing Unconsciousness

#### Do's

- Prevent patient from getting injured due to fall by extending support.
- Tilt head backwards, clear mouth of saliva this will clear the airway
- Raise the legs from rest of body this

will improve blood flow to vital organs like brain, heart, lungs.

- Loosen tight clothing
- Keep the patient warm in winter and cool in heatstroke in summer.
- Keep the record of the condition of the patient.
- Give painful pinch to ear lobule of patient to see any movement of body or opening of eyes.

#### Don'ts

- Never give water to unconscious patient this will block the airway.
- Don't allow patient to get up and walk until patient is fully conscious.
- Don't overcrowd the area.



### A - Check Airway

Safe positioning of unconscious victim breathing normally



#### Positioning of the unconscious patient

(A) Supported spine aligned position- for resuscitation. Hold head, neck and chest aligned with slight traction. With both hands at sides of face, provide jaw thrust, open mouth and moderate backward tilt of head. Prevent flexion and rotation of head.



#### Backward tilt of head

- (A) Hypo-pharyngeal obstruction by the tongue in coma with head in mid-position or flexed.
- (B) Backward tilt of the head stretches anterior neck structures and thereby lifts the base of the tongue off the posterior pharyngeal wall.
- (C) Neck lift, which is easier to teach and
- (D) chin support, which better controls opening of the mouth.



**B- Check for Breathing**

- Is patient's chest moving up and down with each breath?
- Can the warmth of patient's breath felt on cheek?

**Artificial Breathing**

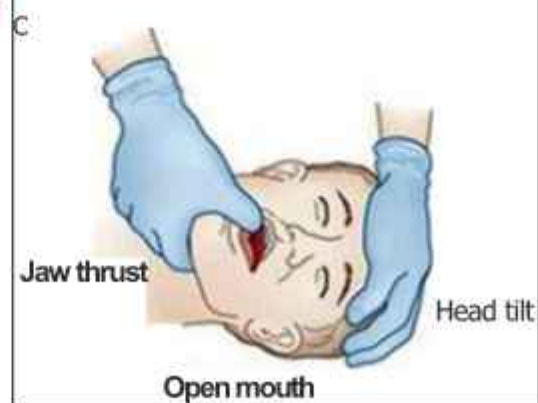
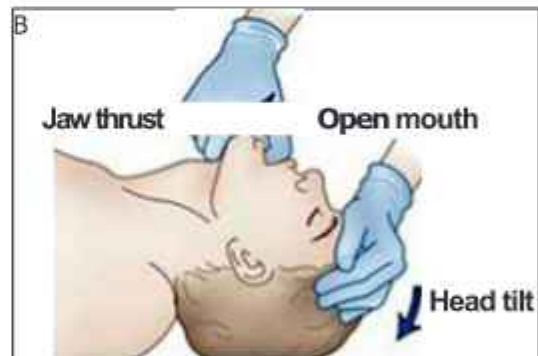
- Mouth to mouth breathin
- Mouth to nose breathin
- AMBU Bag Breathing

**C Circulation**

- Can wrist [Radial] pulse be felt?
- Can the Central [Carotid] pulse be felt?

**Manual clearing of the airway**

When positive pressure inflation attempts meet obstruction in spite of backward tilt of the head, opening of the mouth and jaw thrust and you suspect foreign matter in the upper airway, the mouth must be forced open and cleared of foreign material.



**Three methods to force the mouth for clearing, finger sweeping, suctioning and inserting of airways or laryngoscope**

- (A) "Crossed-finger maneuver" for the moderately relaxed jaw
- (B) "Finger behind teeth maneuver" for the right jaw.
- (C) "Tongue-jaw-lift maneuver" for the very relaxed jaw.

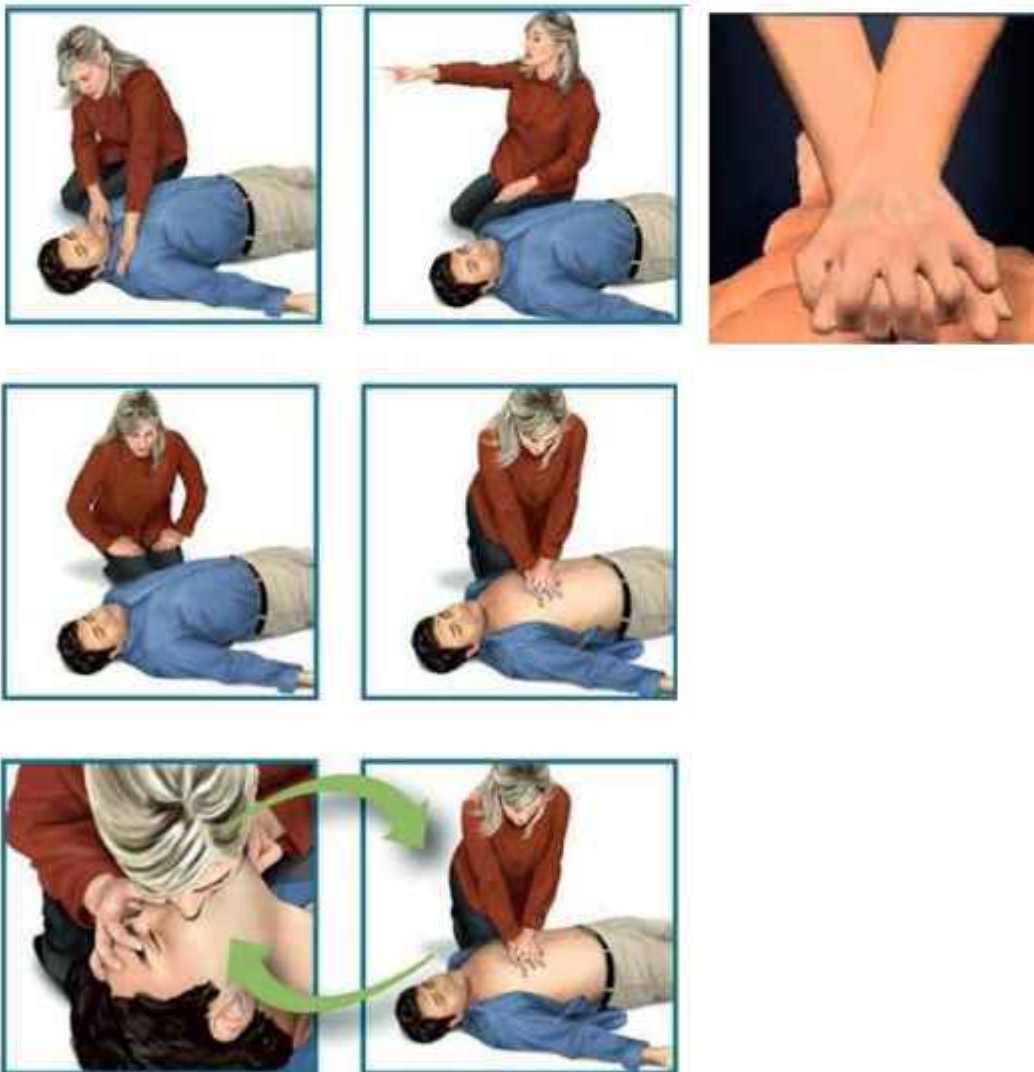




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(A) Mouth- to Mouth (with head tilt by neck (left)

(B) Mouth - to nose (with head by chin support). Inflation (left) and passive exhalation (right)





**if the pulse could not be far**

**If the pulse is felt but Is Irregulars**

This means that heart is not functioning well and the first aid volunteer must immediately resort to External Heart Massage. Only the well trained first aid Volunteers to give external heart massage.

**External Heart Massage**

Around 80 to 100 heart compressions per minute are given in the centre of chest to make the heart function well till medical help Is made available. Chest compression up to five centimetres Is effective In adequate circulation to vital organs like brain, heart, lungs and kidneys.

**1 Check if conscious or unconscious.**  
Gently shake shoulders and shout: "Are you OK?" Activate EMS by sending a bystander to call the local emergency telephone number.  
If positioning is necessary, support head and neck and roll victim as a unit onto back.

**2 Open airway. Check for breathing.**  
Place palm of one hand on forehead and apply firm pressure backward. Place fingers of other hand just under chin and gently lift. Do not close victim's mouth completely. Put ear close to victim's mouth and nose. **LOOK** for rise and fall of the chest. **LISTEN** and **FEEL** for breathing.

**3 If not breathing - Give 2 full breaths (1 second each).**  
Keeping airway open, pinch nose using thumb and index finger. Open your mouth wide and take a deep breath. Place your mouth over victim's mouth making a tight seal. Give 2 full breaths (1 second each) with a pause between to take a breath.

**4 Hand position.**  
Place your hands in center of the chest between the nipples.

**5 Chest compressions.**  
Place shoulders and weight directly over hands, keeping elbows straight. Pushing straight down with smooth and even movements, compress chest cavity 1 1/2-2 inches at a rate of 100 compressions per minute. Give 30 fast compressions allowing the chest to recoil and count: "one, two, three and ..." Follow 30 compressions with 2 breaths and repeat until help arrives.

2 breaths

30 compressions



### Fire incidents and burns

Burn is defined as damage to skin caused by direct contact with dry heat, fire flames, steam, hot liquids, hot metals, sunlight, electricity or chemical, radiological and nuclear material.

#### Degree of burn

1. **First Degree Burn:** These are superficial burns involving top layer of the skin. Skin appears red and very painful.
2. **Second Degree Burn:** These are partial thickness burns involving two layers named epidermis and dermis. The skin is red having blisters, very painful and the tissues are swollen and wet.
3. **Third Degree Burns:** These are called full thickness burns and involve all the layers of skin along with deep structures like muscles, vessels and nerves. The burn areas are charred and look brown and comparatively less painful.

#### Do's

- ◆ Extinguishing flames on clothes by immediately pouring water is best practice because it also reduces the degree of burns. If water is not available then wrap body with thick cloth. This may extinguish flames but does not reduce the degree of burn.
- ◆ Immediately pour water on burnt area this will definitely reduce the degree of the burn and reduce the pain also.
- ◆ Cover the burnt area with clean cloth.
- ◆ Immediately remove the tight clothing and constrictive jewellery like rings, bangles before swelling and blisters.
- ◆ Keep on giving plenty of fluids to drink till the victim reaches hospital. Oral

Rehydration Solution [ORS] should be added in water to compensate the mineral loss in burns. This also prevents damage to the kidneys.

- ◆ In electric burns first snap off electric power supply then give first aid to victim.
- ◆ In Electric shock heart rate becomes irregular and First aid volunteer should give **Mechanical Defibrillation**.

#### Mechanical Defibrillation

First aid volunteer should give thumping blow by fist of hand on center of chest of the victim this is known as Mechanical Defibrillation which can be life saving measure.

#### Don'ts

- ◆ Don't touch the victim unless the electric power is snapped off.
- ◆ Don't use water in electricity burns to avoid electricity jolt.
- ◆ Don't try to remove charred clothes from burnt area.
- ◆ Don't apply grease, oil, ointments or ice on burnt area.

#### Bleeding

Most common wounds like cuts, punctures, crushed limbs lead to lot of bleeding. Bleeding if not controlled can be life threatening.

#### How to stop the bleeding?

##### Do's

- Ask the victim to lie down and elevation of the limb above heart and gentle compression reduces bleeding due to gravity.
- ◆ Direct pressure dressing on wound also reduces bleeding till the victim is



transported to the hospital\_

- If there is an embedded object like wood, iron rod or glass splinter, tie bandage around it\_
- If the bleeding is more raise legs to increase blood flow to brain, heart
- If victim becomes unconscious follow DRABC.
- Remember to give Tetanus toxoid injection at the earliest

**Don'ts**

- Don't allow bleeding limb fall below the level of heart this will increase bleeding due to gravity. Never try to remove embedded object from body at any cost

this can cause life threatening bleeding. Never try to control bleeding by applying ash, sand, cow dung on wound this shall cause infection and tetanus.

**Fracture's and Sprains**

First aid provided In fractures and sprains is Immobilization with locally available material Ince pillow, foot rule, wooden plank, bamboo, umbrella etc. If nothing of this material is available then the fractured upper limb can be Immobilized by tying to chest or lower limb with the sound limb. Do not feed the Injured as this could delay surgery\_ Immobilization of the fracture helps in reducing pain and swelling of fractures and sprains\_

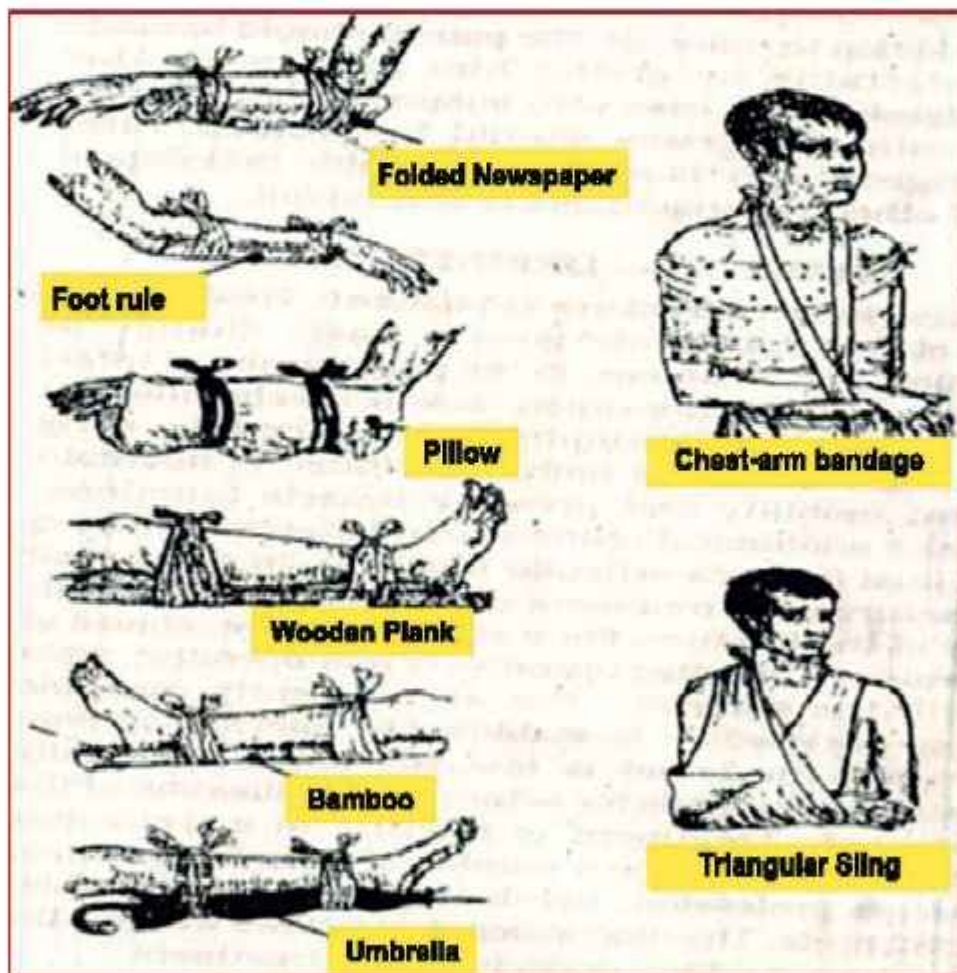


Fig: Indicating first aid provided for fractures & sprains



### Heat Stroke

Heat stroke is defined as sudden temporary loss of consciousness because the temperature regulating system of the body fails in hot and dry environment. The patient presents with quick rise in temperature of body, red skin and no sweating, very fast pulse and confused.

#### Do's

- ❖ Immediately take the victim to cool shaded area from hot environment.
- ❖ Make all efforts to lower body temperature by removing/ loosening/ wetting clothes and fanning the victim.
- Use ice packs in armpits, groins
- Give plenty of cold fluids to drink
- ❖ Keep a watch that victim passes urine at the earliest.

#### Don'ts

- Don't overcrowd the area.
- If the condition of victim worsens immediately shift to nearest hospital.

### Snake Bite

- All the snakes are not poisonous and they bite human beings just to defend themselves.
- Snake have two types of venoms.

- ❖ Venom of snakes like cobra, mamba affect nervous system and is more deadly because the respiratory system gets involve and the victim dies due to respiratory failure before reaching hospital if no immediate first aid is provided.
- ❖ Venom of snakes like viper, rattle affect blood clotting and causes bleeding disorder.

#### Do's

Reassure the victim to stay calm and avoid movement of effected limb.

- Keep the bitten limb below the heart level and let the bitten site bleed for 30 seconds.
- Wash the affected area with soap and water
- Apply a gentle roller bandage two inches above the bite site on the limb.
- Keep a watch on the vital functions like breathing, heart rate and blood pressure.
- Keep victim awake and assist breathing in case of breathing failure.
- Shift the victim immediately to the hospital in sitting posture.

#### Don'ts

- Don't create panic in victims mind that now you will die.



- ❖ Don't waste valuable time to kill and catch snake and take to hospital for identifying snake venom.

### Dog Bite

- ❖ Dog bites are quite common amongst children. Providing immediate first aid in dog bite could reduce the incidence of deadly disease called Rabies.

### Do's

- ❖ Wash saliva immediately and wash the wound with soap and water
- ❖ Cover the wound with dry sterile dressing.

### ○ Seek medical help or shift the victim immediately to the hospital.

- ❖ Keep watch on the dog and if dog becomes rabid or runs away then communicate the attending doctor.
- ❖ Victim must receive tetanus toxoid at the earliest.

### Don't

- ❖ Don't come in contact with saliva while handling the victim.
- ❖ Don't ignore a dog bite Always seek medical help and receive necessary vaccination.

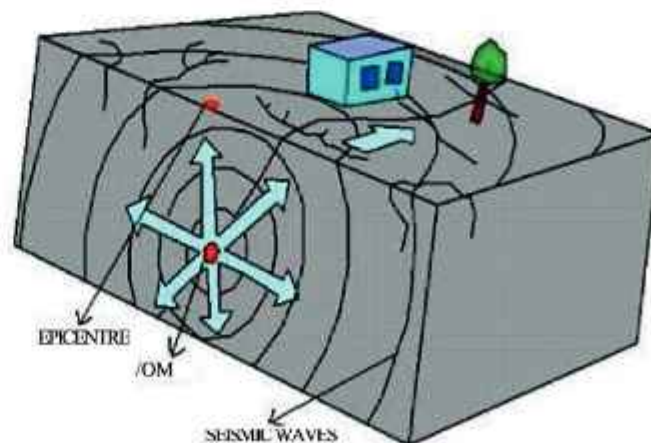
### OWN A FIRST AID KIT

- ❖ Every School, house hold, office workplace should have a FIRST AID KIT of following items:
- ❖ Lightweight box
- ❖ Sterile cotton
- ❖ Bandages

- ❖ Sterile Dressings
- ❖ Triangular bandages
- ❖ Gloves
- ❖ Antiseptic solution Povidine, Spirit
- ❖ Soap
- ❖ AMBU Bag
- ❖ Airway
- ❖ Scissors
- ❖ Small towels
- ❖ Oral Rehydration Solution

### WE CONSTRUCTION PRACTICES

About 60% of the land area of our country is susceptible to damaging levels of seismic hazard. The history of the earthquakes that hit our country in the recent past brought home the harsh reality that earthquakes don't kill people but unsafe buildings do. Jammu and Kashmir falls in seismic zones IV and V that represent high and very high risk for earthquake disasters. Till date we are unable to predict earthquakes and therefore can't avoid future earthquake damages.





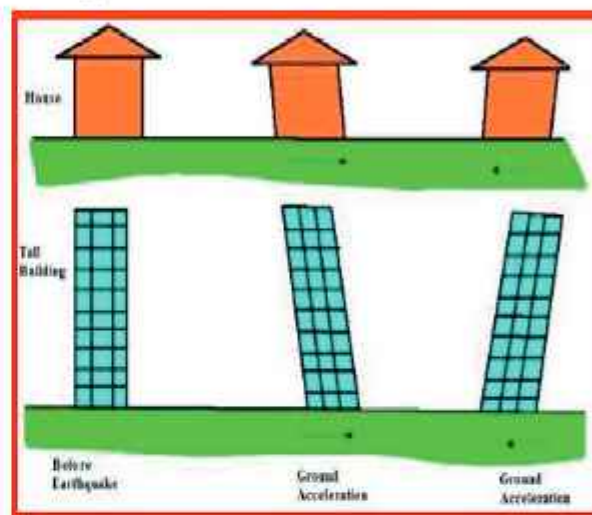
However, preparedness and safe building construction practices can certainly reduce the extent of damage and loss. It is therefore, necessary to have some elementary knowledge about construction and designing of disaster resistant buildings. Using these disaster resistant practices shall have an additional burden of only a few thousands of rupees, but will definitely not more precious than the life of our family members. This chapter shall give you an idea about some important basic tips to be followed while constructing a dream house. National Disaster Management Authority (NDMA) has published detailed guidelines for designing and construction of disaster resistant buildings. These guidelines are available on [www.ndma.gov.in](http://www.ndma.gov.in)

### What causes damage to the buildings?

When an earthquake hits an area, the earthquake waves move in all the directions and shake the ground. Ground shaking generally decreases away from the epicentre. The ground shaking increases in soft soils. This shaking leads to rupturing of ground and develops cracks in buildings. If the magnitude and intensity of earthquake is high the buildings will collapse and people living in these buildings get trapped leading to their injury or death.

As the earth begins to move forward and backward due to vibrations and waves, the buildings are set in motion. Each building responds differently, depending on its construction. The lower part of a building on the earth's surface immediately moves with the earth. However, the upper portion initially

remains at rest. Thus the building is stretched out of shape. Gradually the upper portion tries to catch up with the bottom but as it does so the earth moves in the opposite direction. The to and fro movement shall lead to development of cracks or collapsing of a building. Taller buildings tend to shake longer than short buildings which make them relatively more susceptible to damage.



Movement of the buildings during an earthquake

### SAFETY MEASURES

The primary objective of earthquake resistant buildings is to prevent collapse of buildings during earthquakes in order to reduce the risk to life. There are certain steps which need to be taken into consideration at the stage of planning, designing and construction of the building to make it an earthquake resistant structure. Following measures should be taken while construction of buildings in Seismic Zones IV and V.

- Soil testing is very important tool In safe construction of buildings



- > The building should have a simple rectangular plan.
  - > Long walls should be supported by reinforced concrete columns. Large buildings having plans with shapes like T, U, and X should preferably be separated into rectangular blocks by providing gaps in between.
  - > Doors and window openings in walls, preferably be small and more centrally located.
  - > The location of openings should not be too close to the edge of the wall.
  - > Material strength and quality of construction should be good.
  - > Seismic bands at plinth level, doors/windows and lintel level must be laid.
  - > Seismic band at *rave* level of sloping roofs.
  - > Vertical Steel bar at each corner and T Junction of walls.
3. At the edges and corners the steel bars must be bended and free edges of these bars should be away from the edges as seen in the figure.

The overall arrangement of seismic reinforcing of masonry buildings is shown in the following figures. Fig. a) for buildings with flat roof and in Fig. b) for building with sloping roof consisting of horizontal seismic bands and vertical bars.

Seismic Bands are constructed using either reinforced concrete (RC) or timber. Proper placement and continuity of bands is must. These bands act like a ring or belt. Seismic bands can be provided at the following levels.

Plinth band is a band provided at plinth level of walls on top of the foundation wall. This is to be provided where the soil is either soft (e.g. Jammu and Srinagar Cities) or uneven in its properties as frequently happens in hill tracts.

Lintel Band is a band provided at door/window lintel level on all load bearing internal, external, longitudinal and cross walls.

Eave band is a band provided on top of walls just below the sloping roof of rafters or trusses to which they will be securely fixed through nails and iron straps.



Fig. (a)

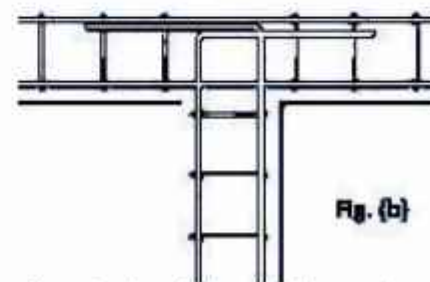
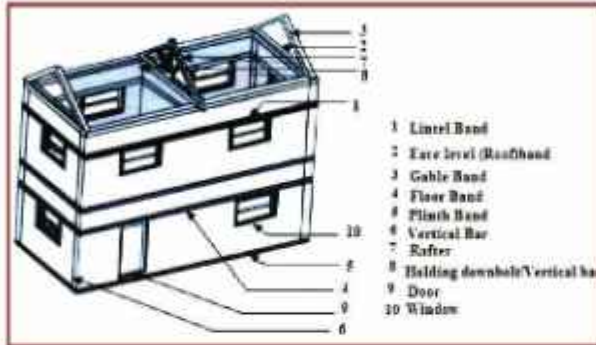
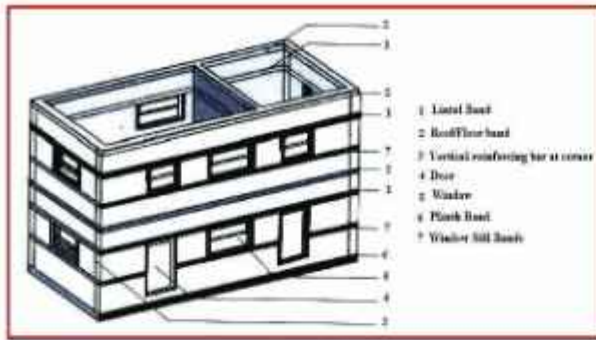


Fig. (b)

Bending design of the steel bars at corners and junctions.





Overall arrangement of reinforcing in masonry double storey building having pitched roof a) with flat roof and b) with sloping roof

traditional designs and using local materials escaped with little or no damage during this earthquake. Two traditional forms of construction in Kashmir are Dhajji dewari and Taq. These traditional houses have demonstrated as better earthquake resistant constructions and have survived the 2005 Muzaffarabad earthquake.

Dhajji dewari uses walls constructed by horizontal, vertical or diagonal timber, filled in with bricks or rubble and a soft earth and lime mortar. In taq or timber-laced construction, large timbers are embedded into both sides of masonry walls at the level of floors and windows, and tied together through the walls and at the corners. Dhajji dewari and taq construction, which use locally available materials, were probably originally developed because throughout the Valley of Kashmir the soil is water-laden, which makes buildings subject to settling (Langenbach, 2009). Both techniques are very effective in holding buildings together, even when parts of them shift out of alignment due to subsidence.

The scenes of destruction following the devastating earthquake in Muzaffarabad in October 2005 are still in the memory of many. But some buildings constructed according to



(a) Dhajji



(b) Dewari



(c) Taq

Fig: (a) Dhajji (b) Dewari (c) Taq construction in Srinagar  
(Photographs by )Langenbach, 2009)



The wooden framework acts as seismic bands and gives strength to the building in earthquake prone areas. As the availability of wood for construction purposes is not freely available, the reinforced concrete bands can be used in place of wooden logs.

### Retrofitting of Existing Buildings

Most of the existing buildings are not earthquake resistant when constructed. These

buildings can be made to withstand mild to moderate earthquake by Retrofitting which is defined as simple measures like adding plinth bands, vertical bands, horizontal bands, lintel bands angle bands etc. Retrofitting may cost around 5-10% of total cost of the building but makes the unsafe building earthquake resistant.

### Quality of bricks

- *Colour should be reddish brown and Uniform*
- *Edges should be sharp, straight and at right angles to faces*
- *Water absorption should be less than 20% by weight after soaking for 24 Hrs.*
- *The breakage should not exceed 5% of the lot*
- *The brick should not break when dropped on their flat face from a height of 60 cms.*

### The Quantity / Quality of Water

- ❑ *Never add water without measuring-A marked bucket is the simplest measuring tool*
- ❑ *Never use salty water*
- ❑ *Water should be potable (drinkable) pH value should be approximately 7.0*

### Cement

- Store cement in a closed room and keep the bags 150mm above floor on a water-proof platform
- A maximum of 6 bags can be kept one above other
- First-in-first-out method should be followed for cement usage
- Avoid dampness by providing waterproof cover
- The date, month and year of manufacture on the bag reveals the freshness of the cement
- Silky when rubbed between fingers
- When hand is pushed in a cement bag, chillness should be felt. Warmth indicates that hydration has started and cement has aged



## COMMUNICATION DURING DISASTERS

*Story of a University teacher:* On 8<sup>th</sup> October, 2005 at 9.20 am when Muzaffarabad earthquake struck, I was standing in front of Jammu University Guest House with a guest. I saw a parked vehicle moving about a meter towards right and then left. It was a huge earthquake and I tried to call home on the mobile phone to enquire about the situation there. However, I couldn't reach anybody as the mobile phone responded repeatedly with the message network busy. After a disaster everybody wants to confirm the safety of his nears and dears. People try to reach their relatives through mobile phones. Due to these mobile and telephone calls the communication networks get congested and we were unable to communicate.

### How to communicate during and after a disaster:

- Call 100, 101 only if you have a life-threatening emergency.
- Data-based services like texts and emails are less likely to experience network congestion. For non-emergency communications, use these services.
- Keep all phone calls brief to avoid tying up voice networks. Just share vital information.
- If you are unsuccessful in completing a call using your cell phone, wait ten seconds before redialing to help reduce network congestion.
- Conserve your cell phone battery
- You can also listen to local radio stations in your car for important news alerts.
- Tune into local TV and radio stations for important news alerts
- Immediately following a disaster, limited use of mobile services can help life-saving emergency calls get through.

## ROLE OF COMMUNITY

The community is an institution in itself, emerging as the most powerful in entire mechanism of disaster management. Community representatives or leaders elected by the people themselves can effectively prepare the community before disasters and manage the grave situation during as well as post disasters. These community leaders serve as the nodal body for effective management of disasters. The main aim of the community is to make people informed, alert, self-reliant and make them capable of participating in all activities and programmes organized by NGO's or Government agencies. Awareness and trainings of the community is particularly useful in areas which are prone to frequent disasters.



A new technology of radio communication is used during rescue and relief operations. The following figure shows important components and working of radio communication system.

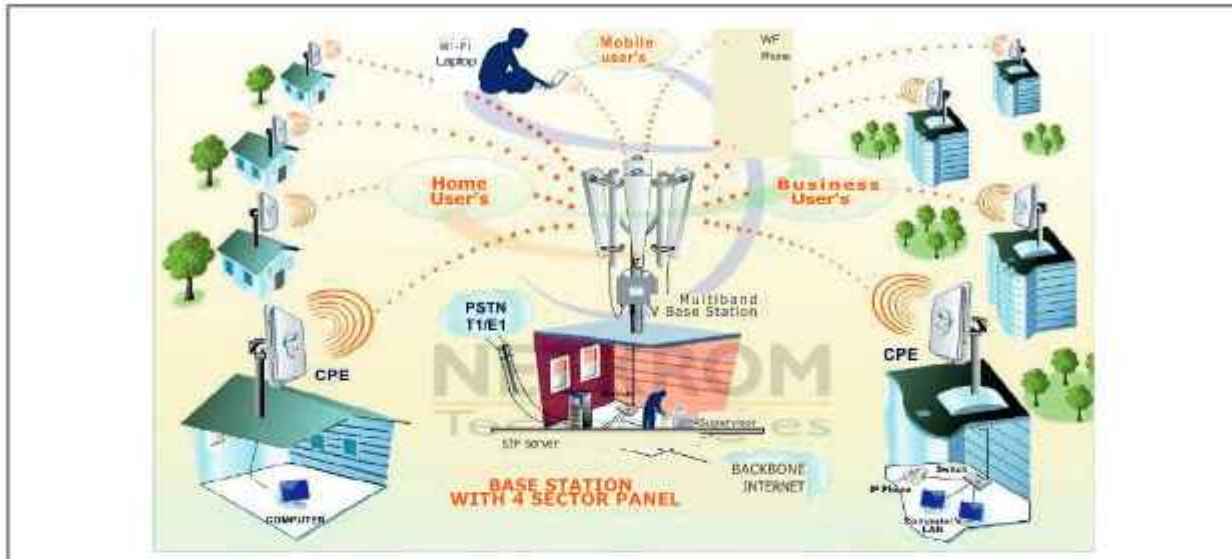


Fig: Modes of communication used during rescue and relief operations

### PREPAREDNESS OF A COMMUNIT

- ❖ Awareness and information campaigns.
- ❖ Training of the local volunteers.
- ❖ Proper planning and advocacy Providing tasks to volunteers.

### DURING DISASTER

- ❖ Shelters at the time of disaster
- ❖ Providing relief and rescue operations
- ❖ Providing correct information to the media and press people
- ❖ Checking rumours
- ❖ Provide information on past disasters
- ❖ Help weaker sections (old people, women and children) of the community

### ROLE OF NGOs

- ❖ The role of Non-Governmental Organisations (NGO's) is a potential key

element in disaster management. It is one of the most effective alternative means of achieving an efficient communication link between the disaster management agencies and the affected communities.

### Stage

- Role

### Pre- Disaster

- Planning
- Training
- Awareness
- Information

### During Disaster

- Help in maintenance of essential services
- Supply offood, water, medicines and other immediately needed material



- Providing large buildings which can be used as shelters for the victims
- Ensuring sanitation and hygiene
- To spread awareness on natural disasters and preventive action needed to minimize damage.

**ROLE OF LOCAL AUTHORITIES**

These include Panchyati Raj institutions and

urban local bodies such as Municipal Corporations, Municipalities, District and Town planning authorities. The Sarpanch is the head of Village Disaster Management Committee. The role of the village Disaster Management Committee is to:





- ❖ Repair the shelters and infrastructure
- ❖ Rescue, relief and rehabilitation of affected people
- ❖ Periodical mock drills to test the plan and to update the local community
- ❖ Plan for construction of structures which are earthquake resistant, fire proof, heat proof, pucca houses etc.

#### ROLE OF AUTHORITIES

- ❖ The main role of the Govt. is to support physical and financial resources. Besides this, the Govt. can also provide consultancy service for appropriate house design for rehabilitation of disaster victims.
- ❖ By giving technical advice for disaster resistant construction. Provide training for locals and volunteers.

Apart from the national, UT and local levels, there are various other institutions which are involved in the disaster management at

various levels. These include the police and para-military forces, fire services, civil defence, revenue/ relief/ health departments, home guards, voluntary groups and NCC cadets etc.

The most important aspect of disaster management is preparedness.

- ❖ The basic role of individual is awareness, knowledge on first aid, rescue and evacuation
- ❖ To warn the people in times of an emergency
- ❖ Contacting the local emergency management office or local red cross office
- ❖ Door to door campaigns
- ❖ Use of loud speakers
- ❖ Each individual member should make people aware that how to use a fire extinguisher in case of a fire disaster.



### III Effects of Polythene

Plastic bags harm us by polluting the environment, killing animals, aquatic life and using up the precious resources of the earth.



Plastic bags are very popular with both retailers as well as consumers because they are cheap, strong, lightweight, functional, as well as a hygienic means of carrying food as well as other goods.

About 100 billion plastic bags are used every year in the United States alone. And think of the huge economies and populations of India, China, Europe and other parts of the world, the numbers can be shocking. The problem is further worsening when the developed countries ship off their plastic waste to developing countries like India.



#### How Are Plastic Bags Harmful to the Environment?

Plastic bags are convenient and easy to use, right from a vegetable vendor to a book seller to a toy store to a garment store. But, most of us are unaware about the environmental degradation that will take place in future due to use of polythene.

#### It litter the Landscape

Most of the plastic bags after use go into landfills. Once, they become litter, plastic bags find their way into our waterways,





parks, beaches, streets and thereby ending up littering the environment. The littering also reduces rate of rain water percolation resulting in lowering water table levels. And, if they are burned, release highly toxic gases like phosgene, carbon monoxide, chlorine, sulphur dioxide, nitrogen oxide beside deadly dioxins.

### **It kill animals and aquatic life**

Many animals ingest plastic bags, mistaking them for food and therefore, die. Nearly about 100,000 animals such as cattle, dogs,



dolphins, turtles, whales, penguins are killed every year. The ingested plastic bag remains intact even after the death and decomposition of the animals and it remains in the landscape where another victim may ingest it again.

### **It is Non-biodegradable**

Plastic bags are non-biodegradable. Do you know that its decomposition takes about 400 years? Who will live so long to witness decomposition of plastic? So, we have to save the environment for the future generation of humans as well as animals.

### **It causes Health Hazards**

During the manufacturing process of polythene carry bags various harmful components/chemicals like colourants, pigments, plasticizers, antioxidants, stabilizers and heavy metals are used. Colours used during the process are mostly non food grade and contaminate food and other items carried in these bags. These chemicals can cause diseases like cancer, degeneration of brain tissues, heart enlargement etc. Most of us take following metals with ready-to-eat food items, if carried in the coloured polythene carry bag like:

- I. Lead through Black polythene carry bags.
11. Chromium through Red polythene carry bags.
- III. Copper through Blue polythene carry bags.
- IV. Salt of Barium through Green polythene carry bags.

### **It requires petroleum to produce plastic Bags**

Petroleum, the non-renewable and an expensive resource which is vital for our modern way of life and fulfilling energy requirements for our factories, transport, heating, lighting and so on is also used in the production of plastic bags. Do you know about 60 - 100 million barrels of oil are needed to produce the plastic bags every year around the world? Do you think, this precious resource should be wasted on



producing plastic bags which is a curse for environment?

### Why should be done to avoid polythene?

- ❖ Use of tote (shopper) bags for carrying shopping goods.
- ❖ Use of wooden made shopping baskets.
- ❖ Use of jute bags for carrying goods. Use of self made paper bags/cloth bags.

### Not to burn the polythene as its combustion releases harmful gases.

- ❖ To educate the masses regarding minimizing the use of polythene.

### Measures taken by J&K Government

Different legislations have been framed from time to time for enforcement of laws pertaining to ban of polythene in the erstwhile UT.

- **The J&K Non-Biodegradable Material (Management, Handling and Disposal) Act 2007** was enacted to prohibit and regulate handling and disposal of non-

- biodegradable material in the UT and matters connected thereto.

- **The Govt. vide SRO 411 dated 3/12/07** directs that the powers to be exercised and functions to be performed by the Prescribed Authority under the act are conferred on the then UT Pollution Control Board.

- **Vide SRO-182 dated 18/6/2008** J&K Govt. imposed ban on polythene carry bags within the territorial limits of the UT.

- **Govt. vide SRO 122 dated 11/5/2009** has framed rules for enforcement of various provision of the Act called J&K Non-Biodegradable Material (Management, Handling and Disposal) Rules, 2009.

- **J&K Pollution Control Board and Municipal Corporations** join hands for inspection of shopkeepers and traders against the use of polythene, conduct periodical raids and impose challans to the offenders.





## Activity

Make three different groups in your class A, B and C. Tell them to collect three types of waste from their home i.e. Food waste for Group A, Cloth waste for Group B and Polythene waste for Group C. Tell these groups to dig up three landfills and bury these wastes into them respectively. After a span of 10 days, examine the landfills and pen down the results so observed.

## Exercise:

Distribute a questionnaire to the students and evaluate it for how much have they understood regarding disaster management

S. No	Question	Answer	Credits (A, B or C)	Suggestion
1.	In case an earthquake has struck, where will you hide to survive?			
2.	What will you do at the instance if you find someone lying unconscious after an incident of disaster?			
3.	What shall be your first aid help to a person who is bleeding profusely due to an injury?			
4.	How will you rescue the trapped people in a vehicle after a disaster?			
5.	How will you communicate with your relatives and friends during and after a disaster?			
6.	How will you help a snake bitten person at first instance?			



### Long type questions

1. Write in detail the role of Search and Rescue team during a disaster.
2. What should be the approach to help a fire burnt patient?
3. Explain in detail the first, second and third degree of burns.
4. What is safe construction practice?
5. What should be the role of community during a disaster?

### Short answers

1. What equipments should be carried by a rescuer?
2. What is ADC formula in Disaster Management?
3. What should be the constituents of First Aid Kit?

### Fill in the blanks

1. .... and ..... numbers should be dialed in case of emergency.
2. Sudden temporary loss of consciousness because of the temperature regulation system of the body is known as .....
3. A kit containing some medicines, bandages, dressings etc for immediate treatment is called as .....
4. NDMA stands for .....
5. Strengthening of old buildings is called as .....



## Road Safety Education





# Road safety



## UNIT-V

- 5.1 Road Safety Education - An Introduction
- 5.2 Why do Children have accidents?
- 5.3 Who can prevent accidents?
- 5.4 Road Safety: Motor Vehicle (Amendment) Bill 2016
- 5.5 Traffic Authorities in India
- 5.6 Traffic Offense and Penalties in India
- 5.7 4E's to prevent accidents
- 5.8 Road Safety Education-Example of Good Practices



### 5.1 Road Safety Education — An Introduction

India has the second largest road network in the world after United States of America. Road transportation makes a vital contribution to the country economy and prosperity of the country. On the whole, the facilities for the road users are not up to the mark, leading to a high toll of the death victims. Recently, there is a growing concern over the road accident problem making road safety education mandatory for each and every citizen of the country. Road safety is emerging as a major social concern in the country. According to a survey from WHO, each year road traffic injuries take away lives of 1.2 million men, women, and children around the globe. The death toll is on the higher side for the developing countries like India where pedestrians, motorcyclists and passengers are vulnerable and vehicles lack the safety norms, like India. Road accidents are increasing because of lack of professionalism and accountability in driver training. In Indian perspective safety norms have lagged behind the international standards. It is really sad that the authorities who have been assigned the duty to look after safety norms on Indian roads have not performed up to mark. But, enhancing road safety is such a complex task that we all should carry the responsibility to achieve success in this area.

In India every year 5 lakh road accidents are reported in which 1.5 lakh people lose their lives. To address the issue of road safety. There have been recommendation that Union Government should immediately bring amendments to the present Motor Vehicle Act, 1988 to address the issue of road safety and improving transport scenario.



### 5.2 Why do children have accidents?

It has been confirmed through various studies that children both from developed and developing countries are vulnerable to road accidents because of the following common reasons.





A secure & sustainable environment is a prerequisite for a healthy nation.

- ❖ Because children are often absorbed in their own immediate interests they can be oblivious to their surrounding.
- ❖ They lack experience or development.
- ❖ Curiosity or a spirit of adventure may lead child into danger. Boys are particularly prone to showing off and over reaching their abilities especially among friends.
- ❖ Tensions at home, jealousy & over excitement may cause a child to run blindly into danger.
- ❖ Inadequate supervision by parents.
- ❖ Poor powers of perception, concentration, attention and physical control
- ❖ Lack of awareness on understanding of traffic signages and traffic rules
- ❖ Poor behavioural patterns in the traffic environment.

### How Accidents Are caused

- ❖ Speeding while driving and reckless driving-failing to follow the speed limit is the most common cause of traffic accident.
- ❖ Use of mobile phone-The proliferation of mobile phone use has resulted in an increased level of danger on our roads.





**Other forms of Distracted Driving —There are numerous types of distracted driving.**

- ❖ Some of the most common distractions resulting in high incidences of traffic accident include eating, smoking, listening to loud music, looking or talking with other passengers.
- ❖ Driving Fatigue — Falling asleep in the wheel. Drowsy drivers account for 100,000 accidents every year in United States.
- ❖ Drink Driving and Driving while under the influence of a Narcotic Substance.  
Rubber— Necking - Rubber Necking is another type of distracted driving and takes place when drivers look other things in the road like watching other accidents, looking at sunset etc.
- ❖ Defective Automobile and Automobile Parts.
- ❖ Defect on Roadway Construction.
- ❖ Poor weather Conditions.

**Violations resulting in Accidents**



### 5.3 Who can prevent a accidents?

There are different segments of people who are responsible to avoid road accidents which are as follows.



#### Traffic Police

They need to persuade safe behavior among people, by applying the law.

#### People representatives:

They need to know about the problems and how to resolve them: by passing the laws and ensuring implementation.

#### Civil Society:

They need to be involved in initiating and supporting local action to improve road safety.

#### Policy formulators:

They need to be aware of the problems and implement solutions through policy making and policy implementation at departmental and ministerial level.

#### Teachers

They need to receive in-service training in Road Safety Education in order to give planned educational opportunities to their students.



**Drivers**

They need to be made aware of responsibilities in road safety.

**5.4 Road Safety : Motor Vehicle (Amendment) Bill, 2016**

Government of India has approved the Motor Vehicle (Amendment) Bill, 2016 to improve road safety scenario in the country. The bill seeks to amend Motor Vehicles Act (MVA), 1988 and proposes to impose immense penalties against violations of road safety rules as a prevention measure.

**Key Features of the Bill:**

**Compensation:** Increases compensation for Hit & Run cases to Rs. 2 lakh from Rs. 25000. Adds provision for payment of compensation in road accidents fatalities upto Rs. 10 lakh. If school bus drivers are caught driving drunk, Rs 50,000 fine will be imposed with imprisonment for three years while "immediate cancellation" of licence will take place in case of drivers in the age-group of 18 to 25 years involved in such incidences. Causing death of a child in certain circumstances will result in "Rs 3 lacs fine, and imprisonment for a term not less than 7 years" while violating traffic signal three times will result in Rs. 15,000 fine, license cancellation for a month and a compulsory refresher training.

**E-Governance:** It focuses on improving delivery of services to the stakeholders using e-Governance. It enables

- (i) Online learning licenses.
- (ii) Increases period of driving licenses validity.
- (iii) Do away with the requirements of educational qualifications for transport licenses etc.

**Offences committed by Juveniles:** The owner or guardian will be deemed guilty in cases of offences by the Juveniles. Juvenile will be tried under Juvenile Justice Act (11 Act) and the registration of Motor Vehicle will be cancelled.

The proposed amendments to MVA, 1988 mainly focus on issues relating to improving road safety, citizens facilitation while dealing with the Transport Department. It also focuses on strengthening rural transport, public transport, last mile connectivity automation and computerization (e-Governance) and enabling online services.

The Bill is aimed at bringing down fatalities in road accidents by two lakh in the first five



years. There will be "4 per cent GDP improvement on account of increased efficiency and safety of road transport."

### 5.5 Motor Vehicle (AMENDMENT) Bill, 2019.

The Central Government of India further amended the Motor Vehicles Act 1988 by the Motor Vehicle (Amendment) Bill, 2019 which got implemented across the country on September 1st, 2019. Along with the stiffer penalties for traffic violations, the act aims at ensuring road safety, compensation for the victims of accidents, third party insurance, grants of licenses and permits and standard or condition of the vehicles.

### 5.6 Traffic Authority in India

The transport Department is one of the largest revenue earning departments dealing with various transport related matters like driving licenses, registration of motor vehicles, grant and renewal of permits and other regulatory and enforcement services. The transport department works under the provision of the section 213 of the MV Act, 1988. The transport department is primarily established for enforcement of the provisions of the motor vehicle act, 1988.

#### **Working Authorities:**

Transport Department works with two of the concerned authorities, under Section 68 of the Motor Vehicles Act, 1988. These are discussed below:

1. **UT Transport Authority:**
2. **Regional Transport Authority:**

Services Provided by RTO:

- ❖ Issuing learner license.
- ❖ Renewal of learner license.
- ❖ Issuing driving license.
- ❖ Renewal of driving license (issued in same and other office.)
- ❖ Endorsement in driving license.
- ❖ Issuing **International** driving permit.

### 2 Related to Registration of Vehicles

- ❖ Temporary registration of vehicles.
- ❖ Permanent registration of vehicles.
- ❖ Transfer of ownership.
- ❖ Entry of hypothecation/ hire-purchase/ lease agreement.
- ❖ Termination of hypothecation/ hire-purchase/ lease agreement.



## Enforcement

The services granted by these authorities are regulated, monitored and enforced by two of the Enforcement Agencies:

- a. Enforcement wing of the transport department
- b. Traffic police

### 5.7. Traffic Offences and Penalties in India

The Indian Road rules, titled "Rules of the Road Regulation", were brought into effect since July, 1989. These rules are applicable to the Indian drivers (all inclusive of two, three and four wheelers), while on the road to ensure an orderly traffic and a safer journey. Violation of these "Rules of Road Regulation" is a punishable transgression as per the city specific traffic police rules and the "Motor Vehicle Acts"

An indicative list of the possible offences and their respective penalties is formulated below:

**RRR** : Rules of Road Regulations 1989

**MVA** : Motor Vehicles Act 1988

**CMVR** : Central Motor Vehicles Rules 1989



**Table 1. Traffic offences and penalties:**

SNb	OFFENCES	MAXIMUM PENALTY*	SECTION
1	Driving without a Valid License	Rs. 500/- and /or imprisonment	( 3 3 r/w 181 MVA months)
2	Allowing vehicle to be driven by a person who does not possess a valid months) License.	Rs. 1000/- and/or imprisonment	( 3 5 r/w 180 MVA
3	Not carrying documents as required.	Rs. 100/-	130(3) r/w 177 MVA
4	Driving without Valid Insurance.	Rs. 1000/- and/or imprisonment	( 3 130 r/w 177 MVA months)
5	Vehicle without R.C.	Rs 20001-	39 r/w192 MVA
6	Driving by Minor .	Rs. 500/-	4 r/w 181 MVA
7	Driving without Helmet.	Rs. 100/-	129 r/w177 MVA
8	Seat Belts not fastened.	Rs. 100/-	138(3) CMVR 177 MVA
9	Rough/Rash/Negligent Driving .	Rs. 1000/-	184 MVA
10	Dangerous or hasty Driving.	Rs.1000/- and/or imprisonment ( 6 months)	112-183 MVA
11	Tripping.	Rs. 100/-	128/177 MVA
12	Driving on Footpath.	Rs.100/-	RRR 177 MVA
13	Stopping at pedestrian crossing or crossing a Stop Line.	Rs.100/-	RRR 177 MVA
14	Disobeying Traffic Police Officer in uniform.	Rs. 1001-	119 MVA 22(a) RRR 177 MVA
15	Driving against Police Signal.	Rs. 100/-	119 r/w 177 MVA
16	Disobeying manual Traffic Signal.	Rs. 100/	239 MMVR 22(a) RRR 177 MVA
17	Driving under influence of Alcohol / Drugs.	Rs.2000/- and/or imprisonment ( 6 months)	185 MVA
18	Using Mobile Phone while Driving.	Up to 1000/-	184 MVA

\*Maximum Penalty : Regulation enactment from UT to UT ( Penalty varies)



### 5.8. 4E's need to be followed to prevent accidents.

Road accidents can be prevented in four main ways, namely the four E's.

- Engineering- by altering the environment.
- Execution - by imposing laws.
- Encouragement - by the use of publicity campaigns
- Edification-by gaining and using knowledge.

#### **E: Engineering:**

Structure plays a crucial role in controlling road accidents which can be created by planning improvements such as, traffic signals, pedestrians crossings, junction layouts and speed control humps. These structures will have a significant role in reducing the human error that frequently occurs and becomes a cause of road crash.

#### **E :Execution:**

Accidents can be reduced by the execution of the law. Traffic police need to ensure the proper implementation of the law of land to reduce road accidents. Generally lower standards of road user discipline in many developing countries such as India, the potential for improving driver behaviour through the proper implementation of law needs to earn the respect of other road users by setting good examples of driving and general road user behaviour.

#### **E: Encouragement:**

The active involvement of the civil society which attempts to inform and educate road users with a view to persuade them to change their behaviour to make accidents less likely. The awareness can be made through newspapers, radio, television, magazines, books and leaflets to promote road safety campaigns.

#### **E: Edification:**

Road accidents can be prevented by gaining appropriate and proper knowledge. It is recognised that Road Safety Education programmes should be evaluated on the basis of class



assignment, models, case studies, seminar/presentation etc. The teachers need to be trained on what and how to teach.

These programmes need to be country specific addressing their national needs, although fundamental principles of Road Safety Education underlie all good practice.

### 5.9. ROAD SAFETY EDUCATION - EXAMPLES OF GOOD PRACTICES

There are countries which are following the good practices to impart Road safety education among the citizens of their country. For instance Nepal, Papua, New Guinea, France, Germany, U. K and Sweden etc. Nepal demonstrate the message related to road education through puppet road show.



The programmes on RSE got initiated in the year 1992 because of large number of accidents. The puppets were chosen because of higher illiteracy rate which ranges from 80% to 50% among male and female respectively. These puppets portrayed road safety messages to children. Various teams of men and women were created and trained to work in designated areas. The puppet road show lasts for 20 minutes focusing on single problem as how to use road imparting road sense and rules of the road among its citizen. These puppets are cheap, easy to make and transport. The puppet show is followed by a





discussion to gather the understanding and in last demonstration are made by the teachers at the designated locations preferably school and college grounds. Recruited through the Scouts and trained to work in designated areas. This approach has apparently been very successful to impart road safety education among the people of the country. The Papua New Guinea developed a manual titled 'Road Smart' with the details as how to use road smartly and effectively targeting the school children as the major audience. Simultaneously this manual also contains a variety of road safety messages, rules and information which are presented in attractive and exciting ways to make the dissemination of knowledge on road safety education in a user friendly manner.

The approach followed by Sweden focusses on Quality assurance of transport which aims to ensure that people and goods arrive at the right place, at the right time and in the right way (i.e. without danger of serious injury or damage to the goods or the environment in connection with the transport). Thus there is a linking of road safety and environment outcomes. In France, there has been programme to increase the involvement of private companies in road Safety related to their use of vehicles.

Agreements have been drawn up between government, insurance companies, national occupational health fund and volunteer companies. The German Traffic Safety Council runs a one day training course in "Safe, Economical and Environment Friendly Driving". In the United Kingdom, various measures have been implemented to improve road safety within organization which include driver training programme, incentive schemes, penalties, accident reviews, driver monitoring systems and driver feedback procedures.

## Suggested Activities

- ❖ You have just read the Motor Vehicle (Amendment) Bill 2016 . Express your views and give a comparative advantage and disadvantage of this Amendment Bill over the Motor Vehicle Act, 1988 (200-250 words).
- ❖ Write a letter to the Traffic Police Department expressing your concern over the ever increasing number of accidents on our roads today. Site inexperience, risk taking, lack of hazard perception, non existent road culture and apathy towards rules and regulations as major causes that lead to accidents. (200-250 words).
- ❖ Write an article on 'Punishable Road Offences' for your school magazine in order to sensitize school students about driving malpractices and their punishments. Write the Article in not more than 300 words using the Table 1.
- ❖ Use the Internet to articles about children who have organized campaigns on
- ❖ road safety in different districts of the state. Bring two of your favourite articles to school and share them with your friends.



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